

# THE YOUTH'S COMPANION

HUNDREDTH YEAR

1926

JUNE 3



*Photograph by Elwin R. Sanborn, for the New York Zoological Society*

## EYES OF THE MIGHTY

In this Issue • • Stories by Jonathan Brooks and Samuel Merwin  
Lee De Forest by Earl Reeves • • Golf, Chapter II, by Glenna Collett

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## THE YOUTH'S COMPANION

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## Things We Talk About

COMING FASTER THAN EVER ARE THE HUNDRETH BIRTHDAY LETTERS, surely the best correspondence ever sent to any magazine by its friends. Perhaps it was Vice-President Dawes who set the example when he told us that he and his brothers and sisters were diligent readers of The Youth's Companion in their Ohio homestead, many years ago, and were active workers for it, too. Perhaps Mr. Will H. Hays, who was Postmaster-General not very long ago, and who now directs the vast motion-picture business, helped to set people's memories in motion when he wrote to us that he was "raised on The Youth's Companion," and that nothing in all his present work appeals to him so much as the relation it bears to boys. One after another the important men and women of America are being heard from. But even more interesting, perhaps, are letters like this one, from Mrs. Sallie Dickson Park of Los Angeles, California:

"MY WORDS," she writes, "may not have the value of those of a statesman or a college president, but we everyday folks like to talk just the same. My grandfather was one of the Y. C.'s earliest subscribers, and I have known and loved it as long as I have known anything. I remember grandfather coming home from the post office, three miles away, jogging along behind fat, sleek old Diana. With a rush we children were upon him. The Y. C. and the fat packages of unground coffee shared honors in the shopping basket. There were five of us children, and four of us are still readers of The Companion. Next to the Bible itself, I believe The Youth's Companion has had the highest place in guiding and widening our minds.

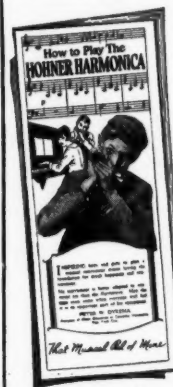
"May the next hundred years be a continuance of this splendid shaping power in the lives of the young people."

NOT LESS SIGNIFICANT IS A VOTE taken recently by the students of the Central High School in Evansville, Indiana. The students reported that among them they read ninety-three different magazines. The Youth's Companion stands first in order of preference. Following it on the preferred list are such sound choices as the Popular Science Monthly, the Literary Digest, the Saturday Evening Post, Boys' Life and the National Geographic. If you will take a similar census anywhere, you will find heartening evidence of the good sense and taste of the younger generation.

SO IT IS THAT MEN LIKE JONATHAN BROOKS and Paul Hollister and Earl Reeves, who are among the writers in this issue of The Youth's Companion, find great pleasure as well as a high responsibility in contributing to its pages. Each of them has an established literary reputation; each is the kind whom you would like your boys and girls to know. All of them are young, and all of them look forward, we hope, to an ever-widening circle of friends among the members of the great Companion family, as the years of the Second Century roll past, and the boys and girls who read The Companion today become the influential and substantial Americans of tomorrow.

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## Sandy McGee Puts Out

By JONATHAN BROOKS

Illustrated by GEORGE AVISON

**S**ANDY MCGEE knew little of the inside of books and paid scant attention to the interior of heads. But he could tell better than another what a heart contained. Sandy, trainer of all the athletic teams at Lockerbie Hall, served also as coach of the track squad, and it was here that he learned to judge the hearts of boys and men.

"Put out, or get put out," was Sandy's motto. He lived this motto for himself, and he preached it for all others. For the members of the track squad he set it up as a guide and enforced it as law.

"Here's the idea," said Sandy, over and over to aspiring athletes. "You go out to play a game of football on Saturday. Give it all you've got, every last ounce, see? Then the next Saturday, you do the same thing, and what is the result? Why, you've got a little more to give, that's all. It's the way to grow—get me? Play the string clear to the end, so hard that you put out more'n yuh knew yuh had. Put out every time, and after while y'v got more to put out."

That's the story of Sandy's motto—the first half of it.

"And any fellow on any team that I've got anything to do with," he announced to each squad he handled, "will put out! He'll put out everything he's got, or else he'll get put out of the game, or the meet, or whatever it is we're in."

Because Sandy preached his motto so forcefully and insisted on upholding his rule, Lockerbie Hall almost invariably turned out hard-fighting, consistently trying teams. Lockerbie basketball, hockey, baseball and football teams might lack the artistic finish of their opponents on court, ice, diamond and gridiron, but Lockerbie teams always put out. And consequently Lockerbie teams won most of their games. Moreover, Lockerbie boys who trained under Sandy McGee almost invariably went through college-athletic and later business careers with credit and honor to themselves.

Many instances might be cited to show the working out of Sandy's rule, but it is just as convincing to tell one story, the story of Jimmy Byers and how he ran afoul of Sandy's dictum. For, as has often been said, it is the exception that proves the rule. Sandy, infallible in judging the fighting content of hearts, misread the sturdy Jimmy, and the boy himself, a hard-fighting youngster, ignored the rule. And then loyal Les Moore, Jimmy's buddy, had to come along and put out—but that is telling the story before it is ready to be told.

At Lockerbie, as at most schools where boys are permitted to take part in more than one sport, a small group dominated all the athletic activities. The same boys that carried the heaviest share of the football burden formed the backbone of the basketball team. They also starred in baseball, and when the track team entered a meet these same fellows were called out for yeoman service on track and field.

Jimmy Byers, a halfback in football and erstwhile a sub in basketball, was one of these stand-by reliances. His chum and roommate, Les Moore, was another. Les ranged from football fullback to basketball running guard to baseball catcher. He joined the track team in emergencies as a weight

man. Both starred in basketball because they put out, as Sandy McGee phrased it, while Billy Armstrong, captain of the five, revolted against training and was suspended. Billy did not like "putting out."

"Sandy said for me to begin doing some running," said Jimmy Byers to Les, one evening in mid-April as they were leaving the gymnasium after baseball practice. "Wants me to do the half and the mile, and try out for the broad jump. Did he say anything to you?"

"Yeah, said he'd have to count on me to do the heavy work in the weights this year, because Morgan's gone," Les replied.

"Do you suppose Billy will go out?" asked Jimmy.

"Well, he told me Sandy asked him to try

he was a short sport and a spoiled baby, but I've changed my mind. He's a good scout, and I'm for him."

Les, interested in dinner, made no reply, but led the way to the dining-room. Jimmy, reflecting that any fellow who could be shown up wrong before all the school and then whipped to boot must be a real sportsman to forgive the man who whipped him and then to offer friendship, followed him.

**T**RACK WORK, already under way for the track men not taking part in baseball, began next day for the baseball players needed to bolster Sandy's forces. Les and Jimmy, with Billy Armstrong and one or two others, worked out under Sandy's direction a half-hour each afternoon, just

said. "The mile's easy, and you're long-legged—"

"Yeah, but for some reason the mile's the toughest thing I ever tackled," Billy interrupted. "Maybe it's because I've lived too soft and started training too late, but I have to fight to get round that track the fourth time."

Billy matched enthusiasm with Jimmy and Les in the track workouts and trained faithfully. Jimmy, who had run the half and the mile a year before, added his own advice to the instructions of Sandy McGee in an effort to help Billy find himself as a track man. But he received instructions from Sandy to take it somewhat easy in the track preparation and to work out with Les in putting the shot. Though not a big, muscular chap, Jimmy was wiry and had a knack of putting all his strength into every effort. Sandy needed weight men, for Les was the only one available with experience. Moreover, he schooled Jimmy severely in the broad jump, so that Jimmy had little time to devote to encouraging Billy Armstrong,

much as he desired to help. When night came, following forenoon classes, military drill, track practice and the baseball workout, Jimmy was too tired to do anything more, even to the extent of talking with his new chum.

"I'll be glad when this track meet's over and we won't have anything but baseball to worry about," said Billy, dropping in on Les and Jimmy just after luncheon, the day of the meet with Wilkes. "Track's a tough game. I'm gonna give it all I've got this afternoon, and then I hope I never get coaxed onto a track team again. It's not my style, but I sure hope I make a letter today."

"You can do it," said Les.

"Sure, go out and get 'em," urged Jimmy.

"You're in the low hurdles, the high jump and the mile, and you certainly can land a first in one of the three. That will get your letter for you."

"Sounds easy," muttered Billy, who, for the first time in his life, was drawn and haggard from hard training.

"It is easy, if you try hard," exclaimed Jimmy.

"If you fight hard enough, it is easy, just like anything else. You can do it. Go get 'em."

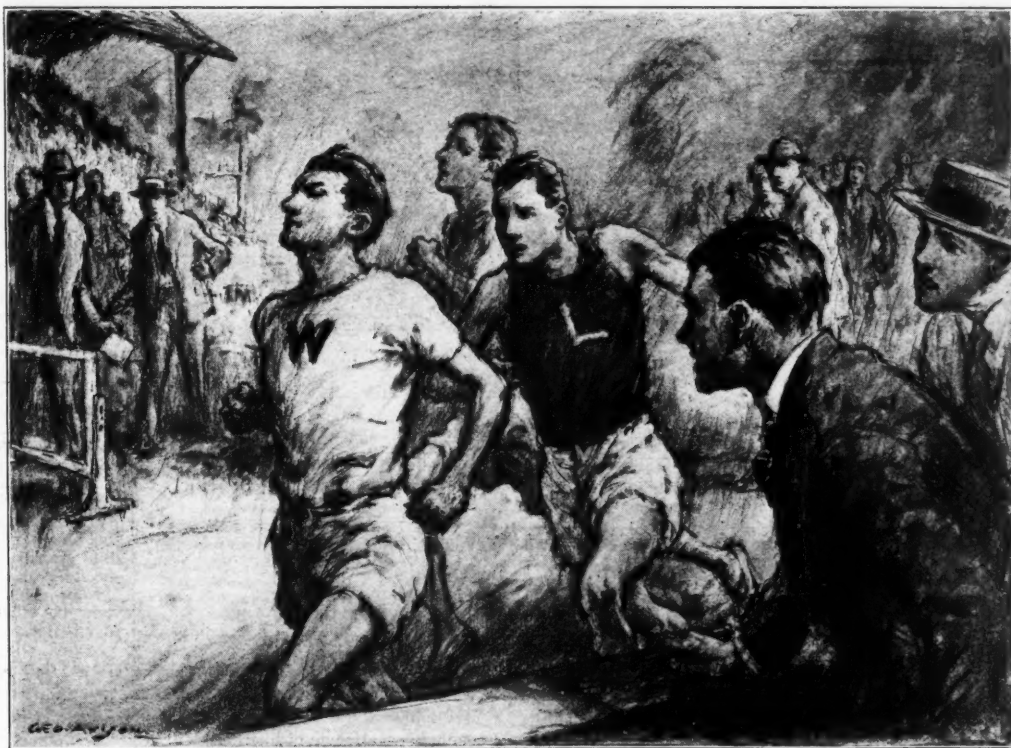
"We'd better be getting down to the gym," suggested Les.

Sandy McGee gathered his boys around him in the dressing room for one last appeal.

"Boys," he said, soberly, earnestly, "I haven't anything more to tell you about running, or jumping, or weight-handling. All the coaching is done. You know as much as I can tell you, if you will only remember it. Do what you've been coached to do, that's all."

"But," and he paused to look slowly around him into all their faces, "there is one other thing to remember. Lockerbie men put out. They give all they've got, and then give extra efforts. And when they don't put out, they get put out. Any man that does not push himself clear to his limit, and beyond it, comes out of this meet. Why? Because he is throwing Lockerbie down, and throwing himself down! But you will all put out—I know that."

"And so if Wilkes has a better team than we have, and I think they have, it won't make any difference. We can win if we will, if every man puts out. Now then, let's get out there, and see what we can do. C'mon boys."



Only a yell of warning from the bleachers as the tape came in sight told Jimmy of the danger. And then it was too late. The Wilkes man passed him

the low hurdles, the high jump, and the mile," said Les. "But he has never done much in track. Says he can't get the hang of it."

"Because he never learned how to put out," commented Jimmy. "But you know, since he got straightened out in basketball, and we had our boxing match, I believe he goes at games differently. Look at the way he came through in hockey, when we put it up to him to deliver."

"Well, he might make a track man, at that," Les agreed. "But it's up to him, and nobody else."

"I'd like to see him crack through," Jimmy continued. "He's a good scout, Billy is, when you get to know him. What do you suppose he's done now? After all the row we had, and the fight he and I put on, he's insisted I've got to go home with him this summer and visit."

"Is that so? Well, he's certainly a white guy," said Les. "I figured he'd hold that old grudge against you till kingdom come. Give it to him, he's all right."

"What I mean," Jimmy said, "I thought

before donning suits for baseball practice. The boys doubling in athletics led a strenuous life for three long weeks preceding the annual dual track and field meet with Wilkes Academy. Jimmy and Les threw themselves into the work with their usual energy and noted, too, that Billy Armstrong seemed enthusiastic, working harder than he had ever been known to work at Lockerbie.

"Don't know whether I can get the hang of this low hurdle business or not," Billy complained to them. "Quite a trick to it. And when you get the trick, you've got to click off the steps and jumps like the tick of an old grandfather's clock."

"Sandy says you've got to be a machine, to make good in track," said Jimmy.

"Well, it's a tough life, but I'm going to win a track letter if it hamstring me," laughed Billy. "Didn't get my football or basketball letter, but, by George, I'm gonna crack through on this track stuff."

"Thatta boy!" exclaimed Les Moore.

"You ought to grab a first place in the high jump, low hurdles or the mile," Jimmy

THE low hurdles early in the programme furnished dire tragedy for the hopeful Billy Armstrong. Billy, off well, led his field the first hundred yards. Then, anxious to press his advantage, he put on speed and toppled three hurdles in succession. Off balance as he rose for the third, he failed to clear and almost fell. Bitterly disappointed, he lost his race, and his first chance at the coveted "L." On the other hand, Jimmy Byers found a happy ending in the half-mile run, for, putting out to the limit of his endurance, he outlasted a Wilkes opponent in a sprint for the tape and won. Too, Les Moore won through to success in the discus throw, not because he was any more powerful than his Wilkes opponent, but because he controlled his balance and his timing to a greater nicety.

But Jimmy met tragedy in the broad jump, for, although he strained every nerve and leaped with all the speed and strength he could throw into the take-off, he could finish no better than third.

The last of the track events was the mile run, and the concluding number on the field programme, the shot-put. Lockerbie rooters pinned their hopes on these two contests, but so did the few loyal Wilkes visitors at the struggle, for the two teams were practically tied, Lockerbie having mustered 52 points, to 51 for Wilkes Academy. But Lockerbie was confident, with Jimmy Byers in the run and Les Moore putting the shot.

"Gosh, it's tight," exclaimed Billy to Jimmy Byers, as they approached the start for the mile run. "Hope I don't fall down."

"Pull yourself together," urged Jimmy. "You can win this race, and your letter with it. Come on. Can you stay with me?"

"Show you," muttered Billy. "Come on, boys, let's see you put out," exclaimed the nervous Sandy McGee. "Get away the best you can, and keep going."

"We're ready," said Jimmy. The starter called them together, warned them not to beat the gun, and ordered them to their marks. They toed the marks, set themselves, and in a jiffy were off. Jimmy left his mark flying, to command an early lead and set the pace. Once clear, he settled into an even, methodical stride, a stride that seemed ridiculously long for his short legs, but a stride that he swung without effort. A quick glance over his shoulder to the right told him that Billy Armstrong had pulled clear of the two Wilkes men and was close beside him.

Relieved, Jimmy planned a campaign. Confident that he could defeat the Wilkes men because he had beaten them a year before, Jimmy decided to "carry" Billy Armstrong to victory and the coveted "L." He determined to set a hard early pace, and kill off the Wilkes men if possible, at the same time taunting Billy to make him hold his position.

"C'mon, Billy, let's go," he called, at making the second turn.

Down the back straightaway, Jimmy quickened the long stride and fairly ate up the cinder track. Right with him, running with a longer but slower stride, came the lanky Billy Armstrong, nettled at Jimmy's challenge. Rounding the third turn, Jimmy cast a quick glance over his left shoulder. One Wilkes man, he saw, was fairly close up behind Billy. The other apparently was ready to drop out of it thus early. Therefore Jimmy held his speed. And Billy Armstrong hung to him. Down before the stands they went, Jimmy first, Billy close beside him, and a Wilkes man five yards to the rear. In the far straightaway again, the second Wilkes man gave up the chase.

Jimmy's strategy had disposed of him, but for fear he might kill off himself and Billy as well if he maintained the clip, Jimmy relaxed somewhat and slowed down. On the turn he once more looked hurriedly back and was relieved to find the Wilkes man had likewise slackened speed. This man either wished them to set the pace or lacked the drive to take command.

SO they finished the second lap and ran through the third. Jimmy still ran evenly, smoothly, with a mechanical action that seemed tireless. But to Billy Armstrong, the race had begun to be a nightmare. Already, with a quarter still to run and the finish to be fought out, Billy was in distress. And the Wilkes man hung on, five yards back, running doggedly.

"Take his spring out of him right now," thought Jimmy. Aloud, he called to Billy, "Let's go, kid. Time to win 'is race." And once more he put on steam, to lengthen the long stride, without lengthening the intervals in which his spikes hit the cinders. Billy

Armstrong, fighting desperately for breath and strength, went with him, and for the moment they pulled away from the Wilkes man. At the far turn, Jimmy eased up ever so slightly and for the fourth time hastily turned his head. They had added perhaps five yards to their advantage over the enemy.

"Guess that 'll hold him," figured Jimmy, craftily. He wanted earnestly that Billy should win this race. It would, he thought, be the making of his new chum. Straightening for the final dash, he again taunted the taller boy.

front of him, Jimmy did not notice the on-rushing enemy at his left. Only a yell of warning from the bleachers as the tape came in sight told him of the danger. And then it was too late. The Wilkes man passed Jimmy before Jimmy could pull himself together. Only twenty yards were left.

Billy, utterly exhausted after his game struggle, collapsed on the cinders. Jimmy, heartbroken, caught himself in his frantic stride, and turned off into the grass of the infield. He cast himself upon the ground. Had he lost the meet for Lockerbie?

Nervily, he struggled to his feet, steadied

## Yankee Originals

BY PAUL HOLLISTER

Illustrated by W. A. DWIGGINS



### M'SIEU BLONDIN

Orville Wright, he built a kite,  
And Wilbur followed after.  
They both sailed round above the  
ground—  
And all they heard was laughter.

Darius Green built his machine  
And sought the open spaces;  
It fell apart and broke his heart  
In divers sundry places.

Houdini drowned—but came around;  
And Fairbanks fought a rattle  
And swung and bumped and leapt and  
thumped  
In Broom-Straw Richard's castle.

And you, Monsieur Blondin-sans-peur,  
Can't hear the Whirlpool rushing;  
You mince across your web of floss  
Nor see those heroes blushing.

You cross now twice—you cross now  
thrice—  
On twinkling, pinkling leg.  
You halt midway, you reel, you sway;  
You crouch—and poach an egg.

So son of sire shall walk a wire  
(My son is such a sample)—  
I count this gentleman of France  
A horrible example.

"Layin' down?" he panted. "C'mon, let's see yuh take me!"

"All done," puffed Billy, every breath hurting him.

"Quitter!" snapped Jimmy. "I'll leave yuh flat!"

So saying, he pretended to sprint and rejoiced, even as he did so, to find his strategy working. Billy Armstrong, fighting in desperation, crazily angry at Jimmy's insinuation, put forth his last supreme effort and, although comparatively an untrained runner, struggled to the fore. Arms waving too high, legs forgetting the old rhythmic stride, he thrashed his way into the lead. Jimmy stayed close at his side, but relinquished the advantage. His game was working!

And then comedy turned to tragedy. For the Wilkes man, after sturdily following the pace for three long laps and refusing to match sprints, finally cut loose with a sprint of his own. Jimmy and Billy had swerved out into the middle of the track, Billy at Jimmy's right. His eyes alternately on the finish line and on the struggling Billy, now in

himself and looked about. Over in the middle of the field the weight men were making their last efforts. Jimmy was entered to help out Les Moore with the shot. Shaking his head and taking a firm grip on his nerves, Jimmy trudged weakly toward the scene. He must make good now for his failure in the run. He could have won that race, except for his silly idea about Billy.

One does not run the half and the mile, ordinarily, and then turn in to shine in the shot-put. Jimmy might have carried on if he had been buoyed up with the triumph of winning his two races, but now he was both weary and heartsick. Les Moore was standing at one side of the group, awaiting his final turn with the shot.

"Les, go get 'em," Jimmy panted. "Listen, you've got to. I threw us down. Could have won, but, now we're tied."

"See what I can do," said the matter-of-fact Les. "But this big dude's got me licked so far."

"Maybe I can land a place," muttered Jimmy.

BUT just then Sandy McGee, thoroughly angry, arrived. He had left the shot-put a few minutes before to witness the finish of the mile run and had remained at the track.

"You're through," he announced to Jimmy, flatly. "Yuh didn't put out in that finish. No shot-put for you. Go in and dress."

Bewildered, but dumbly accepting the punishment and owning his guilt, Jimmy turned away. He took a few steps across the grass toward the gymnasium, and then tumbled down in a heap on the ground. If he cried like a child, why not? Les Moore, at a loss to understand clearly, stared first at Jimmy and then at little Sandy McGee.

"You're up," snapped Sandy. "Go in and win, or we lose the meet. Throw 'at old iron ball away!"

Hardly hearing Sandy's words, but dimly realizing he must make good to cover up his buddy's failure, Les gritted his teeth, picked up the shot and strode into the circle. Crouched, leaning far back, the shot poised in gripping fingers, Les unleashed all his power and snapped into a supreme effort. Anger and desperation drove him, and he fairly whipped the shot away from him. Les Moore put out! Following through to the last inch of perfect balance, he watched the ball's flight. Then a flush of exultation replaced the red of angry determination. He knew he had won—an effort a foot better than his previous best and four inches beyond the Wilkes heavyweight's. Lockerbie 61, Wilkes Academy 60.

Then Les ran to pick up Jimmy Byers.

Billy Armstrong saw the list of letter men for track posted in the gymnasium. He did not expect to see his own name, but he was amazed that Jimmy's name was omitted. Jimmy won the half-mile and was entitled to a letter, he reasoned. Therefore, acting promptly with inspiration, Billy entered Sandy McGee's office. Sandy refused to believe his story. Billy argued and pleaded. Finally Sandy agreed to ask Colonel Wagner, commandant of Lockerbie.

"I have a rule that a man puts out, or gets put out," concluded Sandy, after opening the meeting and telling the story of the track meet. "If a man quits, out he goes."

"But I'm telling you he didn't quit," exclaimed Billy Armstrong. "He could have won that race, only—"

"If he could, and didn't, he quit," snapped Sandy McGee, glaring first at Billy and then at Jimmy Byers, who, ill at ease and sick over the whole business, wondered what he could say or do.

"He wanted me to win that race," argued Billy doggedly, "and I couldn't. I just couldn't go any faster, that's all. If anybody quit, I did. Jimmy didn't."

"Let's see about this," interrupted Colonel Wagner, an elderly officer whose stern and grizzled appearance belied a warm and friendly nature. "Jimmy, is this true?" Jimmy could only nod his head in affirmation. He tried to speak, but his tongue was dry. "Because you thought that would be the fine, sportsmanlike thing to do?" continued the Colonel.

"Yes, sir, and because I never dreamed that Wilkes man could come up and get us," said Jimmy, suddenly bursting into speech. "You see, sir, I wanted—"

"Never mind, Jimmy," and the Colonel held up his hand. "Sandy, I recommend you give the letter to Jimmy. You are right, in that he quit on the mile. But he won his race in the half-mile, so he should have the 'L.' But, Jimmy," and he turned back to the boy again, "Jimmy, let's think about this a minute. You thought it the sporting thing to do?"

"Yes, sir," said Jimmy Byers. "Well, I'll agree with you on half of it," said the Colonel. "It is fine of you to want Billy to get his letter—fine of you to make the sacrifice. But—how about Billy?"

"What do you mean, sir?" asked Jimmy. "How would Billy feel about wearing a letter he had not earned? Would Billy take such a letter? Would you?"

"No, sir." The words sprang from the lips of the two boys simultaneously. "I hadn't thought of that," added Jimmy, in a faltering tone.

"That's right, that's right," exclaimed the Colonel, rising from his chair. "Sandy, it looks as if we've learned something from all this trouble. When sportsmanship goes so far as to become charity, then it is no longer—" And he looked at Billy Armstrong and Jimmy Byers.

"Sportsmanship," they said, together.



# Runners of the Woods

By SAMUEL MERWIN

Illustrated by GAYLE HOSKINS

## Chapter II. The Capture

WHEN Guy gave the order to tell Sergeant Dungan that all the canoes were to turn back at once, the shout passed from mouth to mouth up the river. Two canoes turned at once, and one seemed to waiver; but Dungan's with the one at the head kept steadily on.

"Paddle hard, Henri," Guy said under his breath. "We must catch Dungan."

They swung slowly by the others, but fully half a mile had been covered before they were within easy talking distance of the sergeant. Then Guy shouted:

"Dungan, turn around!"

The sergeant held his paddle poised and looked over his shoulder.

"What are you waiting for? Turn your canoe!"

Dungan and his companion dipped their paddles and brought their canoe slowly about. When he reached Guy he said:

"You must pardon, M'sieu. I thought it was a parting jest of the men."

Guy was beyond the man's impudence. His air was so quiet that even Henri for a second was misled. Guy pointed to the shore.

"Beach your canoe, sir."

Dungan hesitated. "You understand me, Dungan."

The sergeant decided to obey and motioned to his mate to paddle shoreward.

Guy called to the nearest canoe: "Go down stream and tell all the men who were on shore at our start to come here at once. If any have gone, send for them. Send the other canoes here as you pass them."

There was a wait before all the men were gathered. Guy looked them over carefully, identifying four whom he had selected the day before.

"Dungan," he said, "why were these men left?"

The sergeant's face was white, and his eyes ugly. "Ah, M'sieu,"—he was speaking slowly to cover his anger,—"it was only that we wished the best men to be had—"

As he hesitated, Guy took a step forward and looked into his eyes. The men were startled faces.

"Dungan," he said, "there seems to be some doubt as to who commands this party." He turned to the men. "From this moment you will understand that you have but one chief. And now, sir," to Dungan, "you will take off from your pack the three men who came before me last night." The three stepped to one side without a word from Dungan. "I see five of my own men in the party. They will step to one side. And of you," turning to the group of those who had been left behind, "there should be four." These, Hertel among them, came forward. "The rest of you be off. Hertel, you will share Sergeant Dungan's canoe."

At this order, practically placing him under surveillance, Dungan turned contemptuously and took his place.

THE journey to Montreal was a succession of hard, muscle-racking days. Some time was needed to work the men into the routine of all-day paddling. Each night there was the big fire of logs, snapping out sparks defiantly until it had sunk into a heap of dull-red embers which held their color well into the first morning hours. There were the songs of Old France and New France, songs of the soldier, the lover and the runner of the woods. On clear nights Hertel, who had been a famous balladist in his trooper days, was always the center of a group of singers; and long after Guy and Henri had rolled up in their blankets, with feet to the fire, they could hear the songs, sometimes shouted lustily, again hummed drowsily by a few voices.

Sometimes they whispered together about the homes they had left behind them, and the families that loved them, and wondered how long it would be before they would see those homes again.

One night Guy said to Henri: "Do you remember how we felt that first day when we set out alone on our snowshoes for Quebec, not knowing what would befall us?"

"That was before we met Dungan," said Henri significantly.

"Yes," answered Guy. "Dungan! Dungan! Everything that has happened since we

"He has been a soldier for a long time?"

"Yes."

"And always in the King's service, Hertel?"

"Why not, M'sieu?" Hertel shrugged his shoulders. "The King pays as well as any. Ah, do not misunderstand. It is only that he finds it hard to take orders from a young man. He did not see M'sieu trap the dozen Mohawks, as I did. He was not—pardon." Hertel saluted and walked away.

Guy sat for a long time thinking about the men and Dungan, but before he spread out his blanket his mind was clear. And on



"Do you remember how we felt that first day when we set out alone on our snowshoes for Quebec, not knowing what would befall us?"

arrived in Quebec seems to have centered round Dungan!"

WHEN at last the singing ended, and the last weary man had rolled to the fire, the river would take up the strain and carry it on through Henri's dreams. Guy had no dreams.

They passed a number of seignories. Men working in the fields waved to them or ran down the bank to hear some shouted bit of news from Quebec. They stopped only for an hour at Three Rivers.

One night, a few hours before they reached Montreal, Guy was sitting at one side, greasing his moccasins and leggins, when Hertel approached.

"May I have a word?" asked the soldier.

"Certainly, Hertel."

"It is about the men."

"Speak out."

"I would not bring it, but it is only fair to you. I am a soldier, M'sieu, and I cannot speak against an officer, but of this rabble—"

"Well, what is it?"

"I have been asked to join the men in what they call 'a time' when we reach Montreal."

"By all the men, Hertel?"

"No, M'sieu. Perhaps half. You know what they mean. They will drink heavy, very heavy. And it may be days before they can go on."

Guy looked down in thought. Finally he said: "Thank you, Hertel."

The soldier saluted and turned away.

"Wait," said Guy. "What can you tell me of Sergeant Dungan. Do you know him?"

"Well, M'sieu!"

"What do you know?"

Hertel looked away.

"You need have no fear of speaking. I wish to know, Hertel."

"Well, M'sieu, he is an old soldier. He has been twenty years in the King's service."

"Where did he get his accent?"

"His father was English. He was a boy in England."

the following morning, when he sternly led the canoes past the city with only a glance at the rows of buildings and stockades that broke the line of foliage, Dungan's face was set. Henri wondered, but did not question. He was a soldier and must not long too much to embrace his mother and father, since Guy gave him the stern example of suppressing his affections for the sake of public duty.

Once Dungan spoke out: "We are passing the city, M'sieu. We could get more supplies here."

Guy answered without turning: "Move forward, sergeant."

"And the supplies?"

"We shall get none at Montreal. Close up there in front."

ONCE on the Ottawa, with the canoes headed west, the trackless woods about them and the long trail before, Guy's spirits lightened. The real work had begun. The men worked steadily. They were growing a little afraid of Guy since the Montreal incident. Dungan held his own counsel and obeyed orders.

There were places, almost every day, where they had to tumble out to drag and shove the canoes upstream. It was relentless work, with short halts at noon. At night there was only fire enough for the cooking. The songs had ceased, at Guy's order, the night they left Lake St. Louis, above Montreal; for now the sentries should be able to hear every sound in the woods.

The night songs gave place to stories. Dungan had long tales of fighting across a thousand leagues of mountain, lake and plain, from Acadie to the Great River. He could tell of the Big Water of the Missouri, which poured into the Great River a flood so black that it held its own color for a score of leagues. Hertel, too, had his memories; and the men listened, eager and hushed, to his tales of a long captivity among the wild tribes of the North.

Each night sentries were posted. At morning the low fire was extinguished with

water, in order that no smoke should speak to the Iroquois. For long reaches of the journey they paddled close inshore, under a screen of overhanging trees. The leaves were young and not so close a cover, Guy thought, as they should be on the return in the late summer, but they served.

Dungan had his surly moments, when he was inclined to question Guy's orders, but the other men seemed loyal. Then, one evening, Guy noted that Dungan and his own three men were sitting apart from the others, talking quietly. At the first opportunity Guy spoke to Hertel.

"Hertel, if you heard any ugly talk among the men, would you tell me?"

"I do not understand."

"Any talk against me or my orders?"

"If I heard any, M'sieu."

"You understand, Hertel, that on such an errand as ours you must not hesitate at tale-bearing against anyone who threatens our success."

"M'sieu,"—Hertel looked Guy in the eyes,—*"I am a soldier. And a soldier's duty is to the officer in command."*

"What do you think of Dungan?"

"He,"—Hertel hesitated,—*"well, M'sieu knows that forced companionship may be a strain upon the nerves."* He started to turn away and hesitated again. "And with the pride of an old soldier,—and a brave one; for he has known the day when more than one tribe feared his name,—well, it might seem hard. And it will be an honor to the young captain to bear the message that perhaps will save New France, an honor that an older man might be proud to bear. M'sieu understands?"

"You do not mean mutiny?" said Guy.

"Mutiny, M'sieu? Never. But jealousy, perhaps."

This conversation puzzled Guy. In his inexperience he did not know how to meet Dungan's insidious methods of insubordination. The following morning, when they started, he rearranged the men so that each of the three followers of Dungan shared a canoe with a man whom Guy believed to be stanch.

DAY after day passed with no sign of the Iroquois. At night, before the dark came down, the men scoured the adjacent forest to make sure that no chance traitor was near. They took advantage of every strip of cover along the way. The strain of silence, at the end of a cautious week, wore on their nerves and gave rise to sullen moments and muttered quarrels. Guy began to wonder if the Indians had not left the Ottawa for an attack on some upper settlement.

But one afternoon they were winding through a group of islands. Dufault, a seasoned *coureur de bois* who was in the bow of the first canoe, suddenly motioned to his comrade, and they both held their paddles poised, gazing straight ahead over the trees. Guy saw them stop, but his eyes caught no sign ahead. He was sweeping the trees and river when Hertel's canoe drew alongside.

"Does M'sieu see the smoke?"

Guy lifted his eyes. There was little wind. A long way ahead, showing faintly over the trees, was a thin line of blue smoke rising straight toward the sky.

"They may not be on the river," said the old soldier. "Shall we go on?"

"Yes. Take the lead, Hertel. If you lose sight of it, stop at once."

Hertel and his mate swung in toward the shore. The others had stopped and were beginning to drift with the current. Guy motioned to them to follow Hertel. They moved cautiously ahead for perhaps an hour, then the line stopped. Hertel passed

back the low word that he could no longer see the smoke. Guy went forward.

"Shall we go on, M'sieu?"

"Have you seen any other sign?"

"None."

"Yes, go on. But wait. Dufault, you go ashore and scout along a hundred yards from the water. We shall be moving slowly upstream."

Dufault was landed, and they started again. Guy told Henri to turn in next to the leading canoe. The paddles slipped backward and forward with hardly a ripple.

FOR another hour they moved along. Then Guy held up his hand, and the line stopped. He was anxious about Dufault, who should report from time to time. They had halted at a bend of the river. The foliage was not so close to the water as in many other places along their route, and they had an almost continuous view of the river and the opposite shore. A rocky island rose from the water in the middle of the

stream. It was dense with trees and underbrush.

The men paddled slowly to hold their place against the current. For a long time they waited. This dread of an unseen and a superior enemy excited Guy, and his breath came quickly.

One of the men, farther downstream, waved his arm warningly. A man in each canoe got out his musket and looked to the priming. Faintly came up the river the sound of some one moving through the bushes. There was a moment of suspense, then Dufault appeared, some way below them on the lower sweep of the bend. He took to the water, and waded up the stream. As he approached, Guy saw that he was tugging at his sleeve. An arrow was hanging from a rent in the deerskin, caught by its stone barb. Dufault was muttering angrily over the torn sleeve. He was proud of that coat, with its belt of dull mosaic-patterned wampum.

Guy questioned him, but he shook his head and held up the arrow. He had seen no

one. The arrow had flown at him out of a spruce thicket, he thought.

Guy sat for a time, thinking and watching the shores. The men waited.

"Follow me, one at a time," he whispered, and the word passed down the line.

Henri struck out from the bank and paddled across to the rocky island, running the canoe into a small cove. He had decided to hide on the island until dark, when there would be less danger in going on. One by one the canoes followed. Hertel came last with LeMoyne, one of Dungan's men. Guy had adhered to his policy of separating Dungan's men while afloat.

All the rest of that day the canoes remained afloat in the cove, each with one man aboard, while the other men were watching from various points around the island for signs of the dreaded Senecas.

With sunset rain fell. Still Guy delayed the resumption of the journey upriver. But in the dead of night he paced the wood, and one by one the canoes slid out into the stream,

working in close to the overhanging foliage, and keeping as near together, stem to stem, as possible. Hertel and Dufault had the leading canoe, for they knew the tricks of night work. To Guy they seemed to be gliding into some mysterious chasm. Even the banks could not be seen save for now and then a strip of deeper black.

They had gone far enough to be well clear of the island when Guy, who was in the second canoe, bumped into the leading one, and caught a low hiss from Hertel.

Every man heard the sound, and every paddle hung motionless over the water. For a moment the silence was tense. All at once, preceded by a faint ripple, a line of dark objects appeared close at hand. Guy caught his breath, and reached for his musket, which lay at his feet. Before he could lift it there came a yell from two-score Seneca throats, and then the roar and flash from a score of muskets.

Then Guy was in the water, swimming.  
TO BE CONTINUED NEXT WEEK.

# Golf for Young Players

By GLENNA COLLETT

Women's National Amateur Champion

## II. Some Standard Essentials

WALKING along the streets of Rome on my first visit there, I came to the ruins of the Forum. These spoke volumes for the old-time splendor of the Eternal City and the days when she was the greatest nation on earth. The Coliseum also caused me to gaze and wonder and to recall the mighty deeds that were seen there by the Roman throngs. In each case it goes only to show how great changes come, and so, too, in every girl golfer I see the possibility of a coming champion. There is much room at the top of the ladder, for no one yet has been so great that there was not just a little space left there for the next to climb up and stay.

In our country it is true that every American boy or girl has an equal opportunity with his neighbor for being one day the President of these United States. Only one thing must be remembered by the one who wishes to advance in the golf game, and that is that there is no person so good or so high that the youngster with perseverance cannot catch up with him.

The style of the game of that great player Alexa Stirling has left many marked impressions on me, and I owe much to having seen her play when I was just coming to understand golf a little. She put the kindling in the fire that was just beginning to burn, and it has been going well ever since. During the year of 1917 many of the golf stars of this country did some wonderful work and aided in obtaining considerable money for the Red Cross by playing exhibition matches. Alexa Stirling, now Mrs. Fraser, Elaine Rosenthal, now Mrs. Reinhardt of Dallas, Bobby Jones and Perry Adair, all comparatively youngsters, were among those touring the United States and giving exhibitions.

Miss Stirling had just come into fame by winning the National Women's Championship and was reputed to be the greatest woman golfer this country had developed. Bobby Jones in this same season had made a name for himself by qualifying in the National Amateur Championship and then going to the third round. Both Miss Rosenthal and Perry Adair had done excellent work in championship tournaments.

This quartet of youngsters came to the Wannamoisett Club in Providence to give an exhibition, and I recall distinctly the excitement that prevailed at the club over their appearance there. No one in Providence had seen any of these players, whose performance on the links had elicited great praise in all the newspapers.

Naturally I was greatly curious to see these famous stars, and I awaited their arrival impatiently. For the first time I found myself taking an unusual interest in golf. Well, the four finally arrived, and I realized they were all only a few years older

than I. Accordingly my interest or curiosity to see them play increased twofold.

Bobby Jones attracted the most attention among the men, but I—and I guess most of the women—watched every move Miss Stirling made. The first thing about Alexa that attracted my admiration was her wonderful poise, particularly on the links. She looked and acted like a real champion. She was never flustered, never hurried, and seemed at all times sure of herself. I guessed that she possessed a wonderful temperament, and I have learned since that she does.

Miss Rosenthal was quite as impressive. She was not so reserved or business-like as

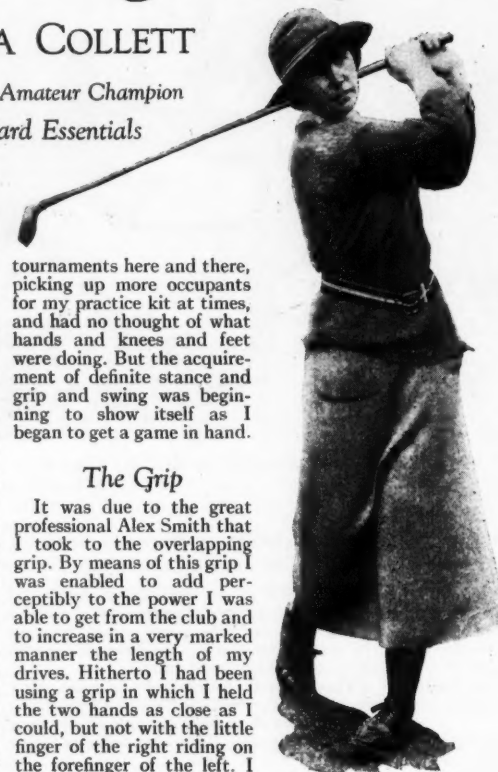
Alexa, nor did she give the impression of being so efficient. But I remember her golf impressed me quite as much, and when she established a new women's record of eighty for the Wannamoisett course that day everybody thought that the last word in women's golf.

Except the players, I was the busiest person on the links that day. I followed eagerly on the footsteps of the girls and had a close-up of every shot played. I gazed in wonder at every kind of shot both girls made, but what impressed me most was their driving and their putting. I had never seen any woman play golf in the manner they played it.

After that match at Wannamoisett I was eager to play golf. The performances of both Alexa and Elaine not only had given me a great thrill but had inspired me. I could hardly wait to get out on the links the next day.

What happened in that next game of golf I played on the following day was even more thrilling for me than the match itself. With the picture of both of the great women golfers in my mind I played like a person inspired. I did not think of my hands or my feet or any part of my body in connection with the golf swing. All I did was to endeavor to hit the ball, and I must say I did so surprisingly well that day. In fact, I had such wonderful success in this respect that on the first nine I had a 49, the best score for nine holes by several strokes I had ever made. This was in fact the first time I had ever broken 50, and I was pleased beyond measure.

Breaking the 50 mark the day after Alexa's visit to Providence made a definite place in my scheme of advancement. It meant that I was on the rungs, going up to the top. However, I was not worrying about what was at the top; I was happy in the open, hitting my ball hard, trying to keep it straight, hunting for a follow-through, enjoying



Mrs. Alexa Stirling Fraser.  
"She looked and acted like a real champion. She was never flustered, never hurried."

### The Grip

It was due to the great professional Alex Smith that I took to the overlapping grip. By means of this grip I was enabled to add perceptibly to the power I was able to get from the club and to increase in a very marked manner the length of my drives. Hitherto I had been using a grip in which I held the two hands as close as I could, but not with the little finger of the right riding on the forefinger of the left. I used to call it the V grip. Alex Smith, however, made me hold the club more in the fingers than in the palm.

Now I will try to explain the overlapping grip as used by me for the last five years; I can see of no good reason for ever changing it. In the fingers of the left hand I take the club not quite at the end of the leather and hold it firmly with thumb and forefinger. The stick does not lie across the hand at the base of the fingers. The three fingers of the right hand I then place as near the fingers of the left hand as possible, and then I let my little finger of the right hand ride on the forefinger of the left, but not between the forefinger and the middle finger. The thumbs are down the shaft, though sometimes I find that I allow the right thumb to lie across the shaft. I think that the finger grip has more in it that will contribute length and speed to the stroke, and with the grip the two hands work more as one, especially in the putting section of the game. The grip, as I have tried to explain it, is another essential to a sound and good game.

### Dare to Be a Copy Cat

It was Alex Smith also who first insisted in my visualizing strokes and reproducing the same from the picture I had in my mind. It is rather wonderful to think of every-

thing as in the mind first. Take Brooklyn Bridge—any boy or girl can easily consider it. It spans the East River and is one of the main arteries of trade between New York and its twin city. It is a distinctive piece of work, stupendous in structure, marvelous in design and bold in conception. But before this bridge in its entirety so majestically connected those great boroughs it existed in the mind of the architect, a mere picture, yet complete in every detail. I can give no better argument to back up my opinion of the necessity of visualization.

Since I was developing right along that inestimable quality, but one that is no more peculiar to me than it is to any other person who is young, I acquired the ability to duplicate the actions of my elders, to carry out another's doings, to imitate and to mimic. Borrowed feathers and acquired ideas are the booty that the young always take from every combat and encounter. It is the power to visualize the golf shot that I so easily acquired.

I find when I am playing an opponent that I must not study too intently his method of play, else unconsciously I shall be doing in my swing the very things he is doing in his. This is owing to my natural bent for copying others. I remember when Alex Smith wished to show me anything especially important he would stand before me and make the shot as he wished to have me do it, and after I had seen him do it a few times I was able generally to reproduce it exactly as he wished to have me. This used to please my instructor. Thus I am not much surprised when I hear people say I can make shots like a professional. Grantland Rice and other sport writers place MacDonald Smith, the brother of Alex, among the best players in the United States. As I read those two names I am led to wonder just how much Alex showed his brother Mac of the game, for, if ever he was as good to his brother as he invariably was to me, then the name of Alex Smith should have the position on that list where the name of Abou Ben Adhem is on the list of those who serve their fellow men.

TO BE CONTINUED.

### BICYCLE POLO

The Great New Game for Boys  
In our next issue: "What America's Foremost Polo Players Think of The Youth's Companion Campaign for Bicycle Polo."



## THIS B WORLD



The plane in which Byrd reached the North Pole

#### America at the Pole Again

An American, Admiral Peary, was the first to reach the North Pole, seventeen years ago. Another American, Commander Byrd, is the second man to obtain that distinction. Less than two weeks after reaching Spitzbergen, his plane, the Josephine Ford, was in the air speeding for the pole. Finding that flying conditions were favorable, he gave up his original plan of first establishing a flying base on the north coast of Greenland, and pressed on without a stop. He crossed the pole, swung around and dashed back to Spitzbergen. The entire trip of fifteen hundred miles occupied only fifteen and a half hours! Nothing but ice fields was observed.

#### Also Norway and Italy

A few days later the dirigible Norge, built in Italy and piloted by an Italian, Captain Nobile, and carrying the expedition headed by Amundsen, the Norwegian discoverer of the South Pole, and Ellsworth, the American, left Spitzbergen, sailed safely across the North Pole and on across the unexplored region to the westward. It reached Teller, Alaska, after a favorable trip of just seventy-one hours. Captain Amundsen reported that nothing but sea ice was seen during the entire trip. He did not of course cover the entire unexplored region, but he sailed across the middle of it, where land, if it exists, would most probably be found.

#### British Labor Rejects Soviet Money

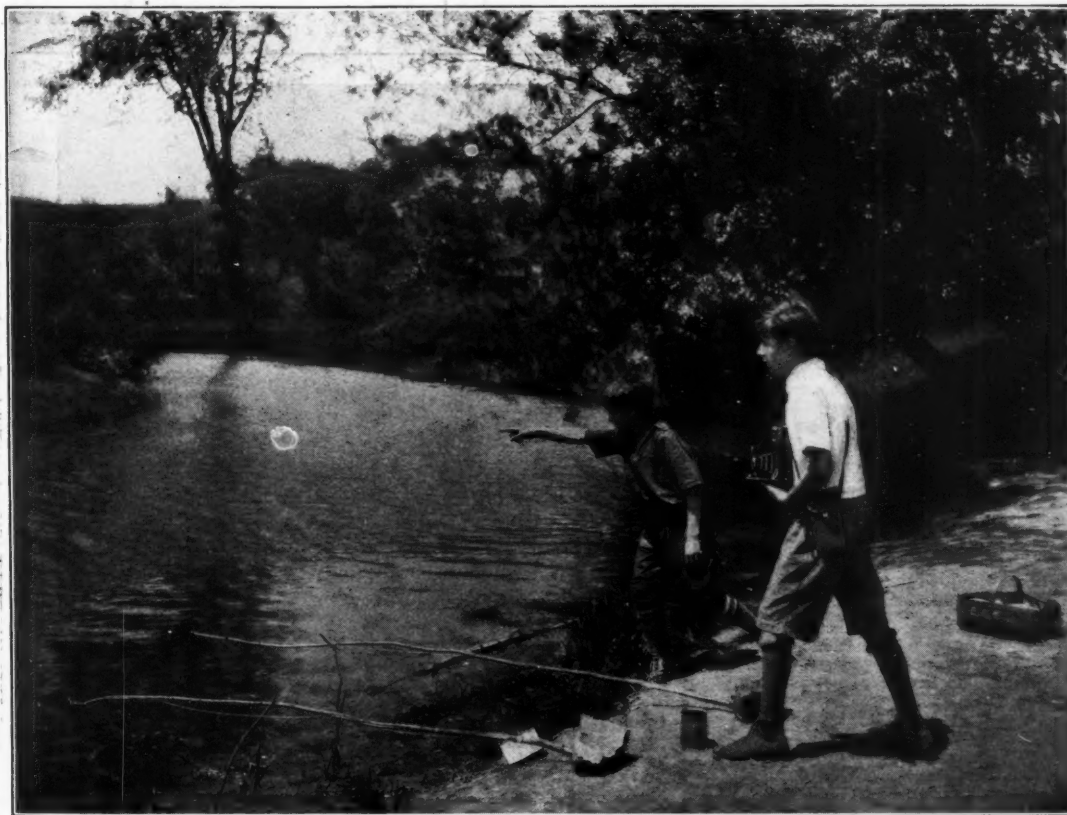
One of the most interesting pieces of news that came out of London during the first week of the general strike was the fact that the British Trades Union Congress had returned to Moscow a check which the All-Russian Trades Unions had sent to the strike fund. It is clear that the British Labor party, though it is divided on the point, still believes it wise to hold aloof from any association with Communism. The exact size of the check from Moscow is not known. All sorts of sums have been mentioned; one million dollars is the largest. The leaders of the strike evidently considered that, whatever the amount was, it was not enough to balance the loss of public sympathy that would follow the identification of their cause with Russian Communism.

#### The Churches Grow

We hear a great deal about the frivolity and lack of religious faith in this present age, but when we come to study the figures we find that the churches of the United States are active and growing faster than ever. The last compilation, published in the Christian Herald, shows a total of 44,452,522 communicants in the principal religious denominations of the country. The actual total would be somewhat larger, for several of the smaller denominations are omitted for lack of reliable statistics. Twenty-five years ago the number was only 26,085,099. Church membership has increased faster than the population. Dr. H. K. Carroll, who prepared the compilation, adds that five new churches have been built for every day of the last twenty-five years. The total of church edifices is now 236,964.

#### Eat Liver for Anaemia

Among the matters of public interest discussed by the Association of American Physicians at the recent convention in New York was a new treatment by diet for pernicious anaemia. That is a disease which, after a course of a year or two, is almost fatal. But a number of Boston physicians have been experimenting with a diet that contains a very great deal of liver. They report that in every case improvement has appeared, and that most patients seem to have been definitely cured.



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# FACT AND COMMENT

**T**HE ENTIRE FOREIGN DEBT is not worth so much to the American people, in dollars and cents even, as a prosperous Europe as a customer.—Secretary Mellon.

WHEN COMMANDER BYRD flew to the North Pole he made a wide circle of about a hundred miles about the spot, so that he might be sure of having reached and passed the top of the earth. That took him about an hour and was the quickest circumnavigation of the globe on record. For, if you will stop to think about it, you will see that this circle was an actual circumnavigation of the earth—in that latitude.

THE OLD-TIME FERULE has almost ceased to be an implement of educational discipline—but not quite. In Connecticut it seems not only to have survived but to have lengthened its reach. A Connecticut teacher who whipped a boy for teasing girls after both he and the girls had left the school grounds has been upheld by a judge on the ground that the true test of a teacher's right to punish is not the time or place where the offense is committed, but its effect on the morals and efficiency of the school. An upright judge!

WEATHER REPORTS aim to be of service to farmers, seamen and shippers of merchandise; it has remained for a summer resort in New Jersey to arrange for special reports for the benefit of its women guests. Since ninety per cent of them have bobbed hair which they curl, or have curled, when it needs it, the weather prophets are going to keep them informed of approaching periods of dampness that would be likely to take the curl out. Let the marcel waves dash high on that sun-crowned summer host!

THE WORD "SURVEYOR" has so long been applied almost exclusively to men engaged in running lines and performing other primitive duties of the civil engineer that it is rather amusing to see it restored to its original meaning of one who looks down upon a thing from above. The airplane has done it. Canada is mapping much of its hitherto uncharted country from flying machines. The photographs thus taken make, when pieced together, a continuous map that tells much more about the country than an ordinary map would show.

THE POULTRY BUSINESS is still in its infancy. A condor, now in the National Zoological Park in Washington, has just laid an egg that is valued at \$750. Why bother with Rhode Island reds or white wyandottes? A pen of condors is the thing. To be sure, they lay but seldom,—this one only five times in twenty years,—but at market rates for the eggs they don't need to lay often. A romantic bird! Its wing spread of nine feet is one of the largest, if not the largest, in the whole avian world; and in the great quills of the primaries the '49ers kept their gold dust. Was that the way "clear quill" got its meaning of pure, unadulterated?

## TREATING THE SCOURGE CALLED "WAR"

**I**T is not a new idea that war is a kind of social disease; a disease that is always costly and injurious, and often fatal. We all want to get rid of war, just as we would all like to get rid of disease. We can obtain some helpful hints about the best way to prevent war by observing the methods that are most useful in avoiding or even stamping out disease.

So long as people depended on incantations or prayers or drugs they never got very far in putting a stop to disease. It was only when the biologists began to discover what it was that actually caused disease and deduced from those discoveries the kind of precautions that would be most effective that we began to make real progress. Having found out the germ that causes tuberculosis, and learned how to fight it, we have cut the death rate from consumption to a tenth of what it used to be. Having discovered how typhoid fever and yellow fever are transmitted, we know how both these diseases can be stamped out, and we are stamping them out.

So with war. If we confine ourselves to pious resolutions or logical arguments against war, we shall make slow and unsatisfactory progress. We must take the trouble to find out just what causes war, and then set ourselves to dealing vigorously with

those causes. There are problems of international trade, of race psychology, of diplomatic practice, of commercial and military geography, of artificial economic barriers, to be studied, not by one nation but by all. Those who know the most about war know that among these questions are concealed the real causes of war. The talk of glory and national honor is useful to arouse the war spirit, once the crisis has arrived, but there are always other and deeper reasons for resorting to battle.

We have in the United States, an institution, the Walter Hines Page School of International Relations at Johns Hopkins University, that is already at work on a study of the fundamental causes of war. We have also a research fund, supplied by Mr. Bernard Baruch, for supporting a thorough study of war "profits," and finding out to whom they go. It would be a most excellent thing if something of the kind existed in every country of Europe, to keep the public supplied with information on the subject of war, how it is caused and how it can be avoided.

The campaign against war may be as long and at times as discouraging as that against disease. Both are scourges to which mankind has always been subject, and it is hard to convince humanity that neither is inevitable. But the effort must be made, and the more intelligently it is made the more chance it has of succeeding. Look for the causes; treat them. That is the only way.

## WORKING THEIR WAY

**M**ORE than fifty years ago that good old Yankee miracle, Elijah Kellogg, sailor, preacher, author of "Spartacus to the Gladiators" and other flights of classic oratory, wrote also a group of boys' books entitled the "Whispering Pine" series. They dealt with the adventures and experiences of a young fellow named Morton in "working his way" through Bowdoin College. They not only were good reading, though they had no literary style, but they opened the eyes of a generation of boys to the possibility of getting a college education without calling upon their fathers to foot the bills. The writer of this article hereby makes grateful acknowledgment to the old Maine country minister for inspiring him with his first hope of entering academic halls.

Those who are interested enough to look up the story of Morton will notice one thing: that he and others of his time who worked their way through college earned their money either by hard manual labor or by teaching school during the long winter vacation that was then usual in the smaller

colleges. Morton cut timber, sawed and split wood, worked in the hay field and did other farm work when he wasn't teaching.

After that period came another when the college boys found their chief source of income in working as waiters, "bell-hops," porters or clerks at summer hotels, and many still find employment in that field. But opportunities have broadened immensely. A recent canvass of the Princeton undergraduate body disclosed the fact that five hundred of the students are earning all or a part of their college expenses, and in a great number of different ways. The occupations range all the way from laying brick to taking care of children in the afternoons. They include painting, proof-reading, newspaper correspondence, carpentering, singing, playing in orchestras, waiting on table in the "commons," handling parking concessions at athletic events, such as football and baseball games, tutoring, caring for lawns and furnaces, and many others. By such means forty-two men are earning all of their expenses; thirty-five are earning three quarters; fifty-five, one half; and one hundred and twenty-five, about a quarter.

There is another interesting side to the canvass, perhaps the brightest of all: that eighty-four per cent of those who are earning their way have found that having to work has not in the slightest degree affected their social standing or the attitude of their college mates. It is what anyone who knows college men would expect; for, although there are snobs and cads in every college, they are comparatively few, and the average undergraduate body in an American college is one of the most democratic groups on earth.

Commencement is approaching and high-school graduation is not far away. It is a time when the question of college or no college is in the minds of many a youth. To all those in whom the desire is backed by will we say, "Go to it!" With courage and determination and the willingness to work, you cannot fail. The way will open, and in the years to come you will be the stronger and the better men for having worked your passage.

## HITTING THE TRAIL

**T**HE oldest form of travel known to man, which is walking, is still the surest, the safest, the cheapest and the most wholesome. It has only two apparent disadvantages: that it is slow, and that it requires physical effort; but both are really virtues, for the slowness enriches the mind by allowing time for observation and thought, and the physical labor promotes health.

We are now in the midst of one of the most

delightful seasons of the year for walking. The woods and roadsides have not yet lost their vernal freshness or passed into the torrid aridity of midsummer. Brooks still run full, and ponds are brimming. Fruit trees are yet flushed with rosy promise, and the birds are flooding the air with their nuptial ecstasy. The rush and noise and dust of city streets become hateful.

The increase in the number of automobiles is one of the commonplace of our time. It has caused a corresponding reduction in the amount of walking that people do of necessity, but there has been a growth in the amount they do for pleasure. Several things have contributed to it. The most important one is the walking clubs and the trail-making and mountain-climbing groups, such as the Appalachians, the Green Mountain, the Tramp and Trail and other clubs made up of men and women who find their chief pleasure in out-of-doors life. The Boy Scouts, the Girl Scouts and the Camp Fire Girls and the large seasonal population of summer camps have also done much to make walking a popular sport. But the trail-makers have done most.

Foremost among them must be placed the Appalachian Mountain Club, which celebrated its fiftieth anniversary only a little while ago. Most of the trails in the White Mountains and many in other regions were built by members with their money. The Green Mountain Club has done similar work in laying out the Sky-line Trail in Vermont; and in New York the Fresh Air Club, founded in 1877, has performed a like service in the Palisades Park, which borders the Hudson almost on the edges of the metropolis. Other groups are building trails in the mountains of the Pacific Coast.

The movement toward the trail is perhaps in part a revolt and a self-defense against the automobile. Numerous as motor cars are, only about one person in ten has one; and, although the other nine may want one, they get little pleasure from those that they do not own. They like to get away from the honk of the horn and the smell of burned gasoline, and the forest trail offers the only retreat to which the automobile cannot pursue them.

A pack and a pup tent make you master of the world. Nature keeps a good hotel and sets a good table, but the service you must furnish yourself. If it is poor, you will know whom to blame.

## A SMALL BOY'S SONG

**I**T was a Sunday-school entertainment, and one of the participants was a small boy, the son of the sexton, an Englishman who had served his country as a leading signalman in the World War. The boy had never taken part in any of the public affairs of the Sunday school before and was known to his classmates chiefly for being the most amusingly skillful and aggressive little boxer of the Boy Scout troop that meets once a week in the vestry. His father had trained him.

But this occasion was quite a different matter. His part was a humorous song, to the accompaniment of the piano. He had committed it to memory, and he sang without notes; but as a precautionary measure he carried the words on a card that he held half concealed in one hand.

The first two or three stanzas went well. Then memory failed. There was a moment of smiling hesitation, then a frank look at the card. Meantime the piano waited. The light on the platform was poor, and the boy couldn't read his lines. With a slight shrug of the shoulders and an engaging smile at the audience, he stepped over to the side of the accompanist, where the light from the piano lamp fell on the card. He glanced at it a moment, nodded to the pianist; the music started, and the song went on smoothly to the end. Then the boy bowed and stepped down.

Never before had that room heard such a round of applause. Other participants had played their rôles more smoothly, some with greater skill, but the boy's song was the great hit of the evening. Everyone present knew that he had been treated to something finer than even the greatest song: an exhibition of victorious pluck by a small boy in circumstances that often disconcert and sometimes down the most "hard-boiled" of men. Of those who congratulated the boy, and his father there was many a parent who envied the sexton.



At the helm in the recent time of crisis in Great Britain. Mr. Stanley Baldwin, who has been since 1924 Premier of the Kingdom



## Miscellany



### The Strawberry Festival

We stripped the trailing berry-vines at dawn  
And pulled and cleaned the ruddy  
fruit they bore,  
Then spread our tables out upon the  
lawn  
Where everyone had strawberries  
galore.

Arthur Guiterman.

### CASH VALUE

"It might have been sold," murmured some of those who watched Mary emptying her perfume over the head of Jesus.

So it might, and those who said so were thoughtful enough to leave us an estimate of the amount that the perfume would have brought. Three hundred "pence" is an awkward enough translation, for money values change with the purchasing power of any coin, and we do not help matters much by substituting "shillings" for "pence." It is enough to know that the coin referred to was the ordinary wage for a day's work, and three hundred "pence" represented an unskilled laborer's wages for a year. It all went in a single hour, when a woman who loved Jesus poured out the contents of the alabaster box upon his head.

Let us not blame the disciples too hastily for their astonished disapproval. Jesus had not been accustomed to luxury; he had been a laboring man like themselves. They were toiling over weary roads and accepting humble fare, and He was permitting an extravagance. If we had been there, we might have agreed with them. If Jesus had said what Judas said, "Let this ointment be sold, and given to the poor," that would be one of the most popular texts in the Bible. "It might have been sold," and most of us would have said that it ought to have been sold. Mary knew better, and so did Jesus.

Love calls for expression. Love is inventive, and there are times when ordinary methods of telling it fail us. Our souls are very nearly inarticulate; painfully limited is the vocabulary of affection. "Say it with flowers" is a sentence worth a million dollars to the florists. They knew that people have emotions that lie too deep for words.

A week later, no one would have thought Mary's gift too great. When Jesus was dead, a hundred pounds of spices were not counted too much. Mary had the love that expressed itself while her Lord lived.

What could Mary have bought if she had chosen to keep the value of the alabaster box of ointment? She could have many of such things as the market afforded and a woman cared to wear or possess.

### ROTARY'S HONORABLE LINEAGE

THAT Benjamin Franklin was not only a scientist, statesman and philosopher but the "first high priest of the religion of efficiency" and "the first Rotarian" are interesting suggestions that the English essayist Philip Guedalla makes in an article in the Forum.

One of Franklin's tastes ran to meetings—to "friends in council." "Its first seed was sown," Mr. Guedalla goes on, "in the Society of the Free and Easy and in that United Party for Virtue which he longed to form. But its flowering was in the Junto, that delight of Philadelphia Friday evenings, supplemented in the right season by a monthly meeting at 'some proper place across the river for bodily exercise.' Twelve members wrestled with first principles in debate, explored philosophy and even turned an attentive eye on physics. But a still closer bond united the philosophers, since a standing question on the club's order paper inquired 'In what manner can the Junto, or any of them, assist you in any of your honorable designs?'"

"The answer, perhaps, lay in that contract for printing forty sheets of the history of the Quakers which an original member of the Junto procured for the house of Franklin & Meredith. The objects of the club included 'the promotion of our particular interests in business by more extensive recommendation,' all its members 'exerting themselves in recommending business to us.' It was the parent-lobby of a stupendous brood; and, across the gulf of time, one acclaims Franklin as the first Rotarian."

### A MONUMENT TO A TREE

THERE are many monuments throughout the world that have been erected to honor celebrated persons, and not a few that commemorate notable events in the histories of nations; but it is rare indeed that we find an object so ordinary as a tree thus distinguished.

Recently the people of Central City, Neb., have placed a marble monument to mark the spot where once stood the famous Lone Tree of the old California Trail.

Over this trail seventy-five years ago across the prairies and the mountains passed thousands of hardy gold-seekers and homesteaders, daring danger and even death in their eager pursuit of wealth or comfort in the rich and beautiful country of California. They journeyed in every conceivable way, on horseback, in buckboards and light carts, in the great, lumbering, ox-drawn covered wagons; some came on foot. Not a few of them left their bones to bleach on the long,



hard, often waterless trail, but most won through to lay the foundations of the great commonwealth that faces the Pacific.

One of the most famous landmarks of the old California Trail was the Lone Tree, which gave its name to the Lone Tree stage station, now Central City, Neb. It was the one spot where shade and water were to be found after miles of toiling over the sun-scorched and waterless plains.

The tree was a giant cottonwood, conspicuous for miles because of its girth and height, its top crowned by a mass of foliage that spread out like a great canopy.

### HE KNEW TOO MUCH ABOUT IT

A COLLEGE professor, says the Argonaut, calling at the home of a friend, was engaged in conversation by the latter's small daughter, who apparently felt called upon to entertain the guest. So she announced she would tell him a story. "There was once a man named Columbus," she began, "and a queen sent him on a voyage, and his ships were named the Ninta, the Pinta and— and—" "Santa Maria," prompted the professor. "Yes, and the queen's name was—" "Isabella," suggested the professor. "Professor," demanded the child, with sudden suspicion, "have you ever heard this story before?"

### THE IMPOSSIBLE GOLDEN MEAN

THE proprietor of a grocery noticed a woman complaining to one of his clerks. After she had left the store, he asked the clerk, "What was she complaining about?" "The long wait," explained the clerk. "Well," remarked the philosophic grocer, "you can't please some people. Only yesterday she was complaining of the short weight."



## This will be worth a job —some day

We are going to give you this one right from the shoulder, boys. Take it standing up.

After you've been playing hard, is there an unpleasant odor to your body?

If you don't correct this trouble, it's going to lose you a lot of friends, deprive you of good times, interfere with your success when you get into business and keep you out of the company of ladies and gentlemen.

You can correct it. There is no excuse for body odor, even when you perspire freely.

The cause of body odor is an accumulation in pores of fatty waste

and the acids of perspiration. Ordinary bathing does not wholly remove it. Lifebuoy Health Soap does remove this waste matter. Its remarkable antiseptic ingredient gives to Lifebuoy lather a peculiar searching, penetrating quality which completely cleans out the pores.

After a good honest Lifebuoy bath, your skin will stay fresh and odorless for hours.

This thing of keeping clean is a habit. Bathe every morning, not just when you think of it. You never know when a smelly body is going to get you in bad.

Why not get the Lifebuoy Wash-up Chart? It reminds you, but never nags. Thousands of the fellows are using the chart and find it a big help—likewise good fun.

We will gladly send one free. Use the coupon.

free

LEVER BROS. Co., Dept. 24, Cambridge, Mass.

The Wash-up Chart sounds fine. Please send me one, together with a "Get-acquainted" cake of Lifebuoy. I understand they're both free.

Name \_\_\_\_\_

Address \_\_\_\_\_

WASH-UP CHART		Health Pledge				
	Before	After	Before	After	At	Bath
Monday	X	X	X	X	X	X
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

There are germs on almost everything you touch.

BOOKS TOOTHBRUSH HANDS PETS BOOKS

# LIFEBUOY

HEALTH SOAP

To secure this Membership Button, the first step is to use the coupon below



## 27th Weekly \$5 Award

We can't have too much of lathes. There exists no single more valuable tool, or, unfortunately, one that is further removed in price from the usual resources of Y. C. Lab Members. And so we are engaged in compiling ideas which could be utilized in the home construction of this highly useful adjunct to the members' workshop. Some day in the near future there will be a Y. C. lathe. Meanwhile, Member Geldard Middlebro (15) of Owen Sound, Ontario, Canada, contributes one of his own with several excellent features, and wins the 27th Weekly Award. The main feature of Member Middlebro's design is that he utilizes foot-power to operate it. A bicycle sprocket with crank and pedals attached is the initial means by which the energy is transferred to the spindle. A bicycle chain connects with a smaller sprocket, which is in turn attached to a large wood wheel. A belt connects this to the actual spindle, which, although Member Middlebro does not specify, must, through all this multiplication in speed, turn fifty times to one turn of the pedals.

The photograph well illustrates the lathe. The entire apparatus is mounted on a trestle, and the construction is of wood throughout, bolt-fastened. There is room for improvement in the design of the tailstock, but the total achievement is excellent. "My father does not believe in giving me practical assistance," says Member Middlebro, "but he is always ready with suggestions." An excellent policy, under which Member Middlebro works, and you can readily see its results.

## Questions and Answers

Will you please answer the following questions: (1) Is the alder a tree? (2) Aeronauts say that balloons have more buoyancy in the day, when the sun is shining, than at night. Why? (3) If an air-tight glass globe were lowered by a weight to three miles under the sea, would the pressure fill the globe with water or crush it? (4) How many miles above the earth's surface does the air extend? (5) What is the record height made by airplanes above the earth?—Melvin Small, North Head, N. B.

Answers by Mr. Young: (1) The alder is classified as a tree or a bush, according to its size. (2) Balloons have more buoyancy in the day for two reasons. The sun's rays heat the surface of the balloon and the gas inside it expands when heated. Also, at night moisture condenses on the balloon surface and makes it heavier. (3) The pressure at a depth of three miles in sea water is approximately 7000 pounds per square inch. If the glass globe were not of sufficient thickness to withstand this pressure, it would be crushed. I doubt if any water would reach the interior. (4) The limit of the atmosphere is at some unknown elevation above twenty miles. Scientists must learn more of the properties of gases at very low temperatures and pressures before this can definitely be determined. Lieutenant Callizo, French aviator, has reached a height of 39,586 feet. Lieut. John A. Macready of the U. S. Army recently failed to break this record, although he made a noble attempt.

## Membership Coupon

The first step for any boy to take towards membership in the Y. C. Lab, is to fill out and mail the coupon below, which will bring full information and an application blank.

Here are the most up-to-date statistics on applications and memberships

Total Applications .....	3164
Total Associate Members .....	763
Total Members .....	38
New Associate Members since last week .....	147
New Members since last week .....	6

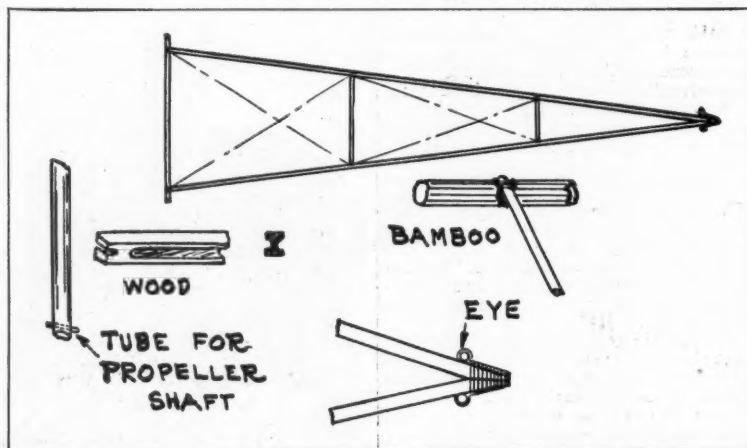
The Director, Y. C. Lab  
8 Arlington Street, Boston, Mass.

I am a boy ..... years of age, and am interested in creative and constructive work. Send me full particulars and an application blank on which I may submit my name for Associate Membership in the Y. C. Lab.

Name .....  
Address .....

# THE Y. C. LAB

The National Society for Ingenious Boys



## How to Build Model Airplanes

### Part II—The Framework

By F. ALEXANDER MAGOUN, Instructor in Naval Architecture, Massachusetts Institute of Technology, and Councilor, Y. C. Lab

(Note: In the Y. C. Lab proceedings for April 15 in The Youth's Companion, Councilor Magoun offered some general information on the building of model aircraft. Between this time and the Y. C. Lab Model Airplane Contest to be held in Boston on October 2, 1926, Councilor Magoun will write for the benefit of contestants several short and more detailed articles of description of various airplane parts. This article deals with The Framework. Future notes will deal with Wings, Propellers and Landing Gear, and there will be a future article on Operation.)

THE DIRECTOR.)

JUST as the foundation is the base upon which a house is built, so the frame, or fuselage, of an airplane is the structure to which all the other elements of the machine are attached. It should be as light in weight as possible, and still possess the necessary stiffness and capacity to absorb shock without injury.

For the twin-motored monoplane model the "A" frame construction is the most popular, because it combines to the best advantage all the structural qualities desired. The two side members are necessarily in compression, due to the pull of the rubber motors, and must therefore possess considerable stiffness. If a thin steel tube of the right diameter could be obtained it would be admirable for this purpose. It might even be possible to house the rubber bands within the tube so that they would present no additional resistance.

In deciding upon the dimensions of the frame it should be borne in mind that the model airplane, in direct contradiction to the proportions of the full-sized one, has a fuselage which is as long as the wing spread, if not longer. This length of fuselage is necessary in order to provide for a sufficiently long rubber motor properly to power the machine.

The material now most widely used is

either wood, such as white pine, ash or white wood, or split bamboo. Wood should be well seasoned, free from knots, and hollowed out at the sides, as shown in the diagram. The material removed would contribute little strength, and its removal effects a considerable saving in weight. When bamboo has been decided upon as the structural material, the natural impulse is to use a small piece of rod, perhaps from the smaller end of an old fishing pole. This, however, contains pith on the inside and heavy rings at intervals along its length. The same strength with 40% less weight can be obtained by securing a piece of bamboo some three inches in diameter, sawing it into strips, removing the pith and planing off the irregularities. These strips should then be fastened together by gluing and binding at proper intervals with carpet thread.

The struts, or cross members, should be fastened to the longitudinal members by the same method—that is, bound and glued with some such material as Du Pont's Household Cement, which is practically waterproof. Models have been built with wire-bound members soldered together, but this unfortunately not only is heavier but also causes the wood or bamboo to rot. Do not drill holes in the side members, as it greatly weakens them.

A strong wire, bent into two eyes at the ends, is attached at the apex of the side members, thus providing attachment for the fixed end of the rubber motors. The strut at the other end of the frame is mortised into the side members and projects about 1½ inches beyond them on both sides. Small brass tubes are fitted through this strut, as shown, through which the propeller shafts pass to the revolving ends of the rubber motors. The distance between the tubes for the propeller shafts should be determined by the diameters of the propellers.

In an early issue—Photographs of "Cinderella," sensational Y. C. Lab Roadster

## The Airplane Contest is On the Way

For the boy seventeen years of age or less who designs, builds and operates the model airplane making the longest non-stop flight at the Y. C. Lab Airplane Meet to be held in Boston on October 2, 1926, Prof. E. P. Warner, head of the course in aeronautical engineering at the Massachusetts Institute of Technology and a member of the aerodynamic subcommittee of the National Advisory Committee on Aeronautics, offers a \$25 loving cup.

For the boy, living at too great a distance to enter this meet, who designs and sends to the Director, Y. C. Lab, the model airplane showing the best workmanship, balance, design and originality in the opinion of the Director of the Y. C. Lab and of Professor Warner, The Youth's Companion offers another \$25 loving cup.

All planes received by the Director, together with the best planes entered in the meet, will be on exhibition at The Youth's Companion office.

### CONDITIONS

- (1) No contestant can be over seventeen years of age on October 2, 1926. Any Member, Associate Member or Applicant may compete.
- (2) All entries must be original work. This does not prevent the contestant from receiving advice. Send no model until called for.
- (3) Entries may be tractor or pusher type, monoplane or biplane, but in no case shall the wing-spread exceed 36 inches.
- (4) Any number of propellers may be used.
- (5) The model must be capable of rising from the ground under its own power without initial impulse from exterior sources of any kind.



This seal on manufactured products certifies tests made by the Y. C. Lab

## A Column of Awards

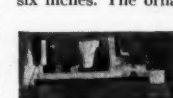
The mounting evidence of the ingenuity of Lab Members is beginning to tax our space. The number of Cash Awards has grown rapidly in the past few weeks—just as rapidly as the skill and brains of some of our best Members have become evident. Excellent diversity is shown in recent projects, as you will surmise from this column. Here is the catalogue:

To Member Charles A. Bushnell, Jr., (19) of Aberdeen, Washington, a Special Award for the design and construction of the pontoon boat shown as Exhibit A. Three pontoons are used in its construction, fastened together with wooden crosspieces. The oarlock holders are of special design. Note how well the craft bears the weight of a fairly heavy boy.

To Member Robert J. Kasson (15) of La Grange, Ill., a Special Award and Commendation for the design, drawings and construction of the handsome Viking Ship model listed as



Exhibit B. Member Kasson submitted a colored drawing with his description, which interested the Directors to the extent that they requested further details. They came with the photograph, in which you can almost see the barbaric colors of the model. Its overall length is 19 inches, and height from keel to mast top, six inches. The ornamental bow and stern are red; the body is red and white. The sails are gold with blue stripes, and the mast is green. Member Kasson is careful not only in his work but in his descriptions of it.

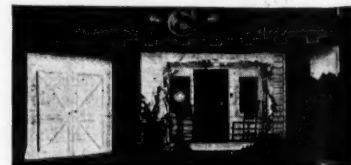


Further, he is a draftsman of considerable ability. We expect soon to publish a brief article by Member Kasson on this important subject, with critical notes by Councilor Townsend, Instructor in Mechanical Drawing at the Massachusetts Institute of Technology.

Member Charles Fogwell (14) of Phoenix, Arizona, receives his Special Award for a small lathe for light work on wood or metal. You will note it as Exhibit C. The bearings and the spindle Member Fogwell has readapted from a Ford engine, utilizing a wrist-pin bushing in particular.

Exhibit D shows Member Bert J. Harry (13) of San Marcos, Texas, with a model ship of his construction. In rough outline it corresponds to the Mayflower type, on which we shall have more to say at some later time.

The work of Member Frederick S. Brucker (16) of Chicago, Ill., for which Special Award has been made, is shown in Exhibit E. It is a stage set for the play "Penrod," as given at Camp Strongheart, on Tomahawk Lake, Wis. Member Brucker was stage carpenter for the production and constructed the set under direction of a camp councilor with the help of



one other boy. Scrap lumber, left over from building the camp, plus Beaver Board, produced the admirable result here set forth, from a remarkably clear photograph of Member Brucker's own taking. The making of a stage set without an appropriation for materials is something to test resourcefulness to the limit. Perhaps it is because of this that some of the most effective settings are made for the least money.

Five awards in one week! This is a fast pace, but we must keep up with our designers at all costs.



## BIG-BANG CELEBRATORS

NO MATCHES NO POWDER



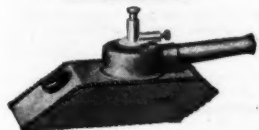
—SAFE NOISE—



### SAFETY PISTOL

A Real Pistol in looks but absolutely safe—made of black gun-metal—comes in leather holster.

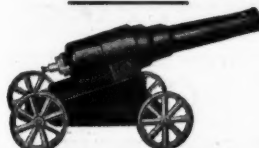
No. 6P—Price \$2.00—8 inches



### ARMY TANK

Fired like any BIG-BANG with the added feature that Tank can also be fired by stepping on the ignitor.

No. 3T—Price \$1.00—8 inches



### HEAVY ARTILLERY

This New Model has four red wheels and is mounted on a strong steel carriage.

No. 10W—Price \$3.00—14 inches



### FIELD ARTILLERY

No. 16F—Price \$5.50—length 23 inches  
No. 12F—Price \$3.75—length 17 inches  
No. 8F—Price \$2.25—length 11 inches

### EXTRA SUPPLIES

Bangate (ammunition) per tube \$1.15  
Spark Plug (ignitor) per card . . . 10

**PARENTS!** Protect your child. Relieve yourselves from heaps of worry by getting him a powderless BIG-BANG—real in appearance and operation with all danger cut out.

BIG-BANG in military games, saluting and celebrating has the Glamour, the Flash and the Boom which appeal so strongly to every boy, with the absolute safety demanded by the most exacting parents.

**SAFE NOISE FOR SALE**  
If your dealer cannot supply you, send money order or check or pay the Postman for a "BIG-BANG" with a Supply of Bangate (ammunition) which will be sent to you prepaid in U. S. A. together with complete directions.

**GUARANTEE**—If the BIG-BANG is not entirely satisfactory, return it at once and your money will be refunded promptly.

The Conestoga Corporation  
Bethlehem, Pa.  
(FORMERLY TOY CANNON WORKS)

### "Save—Succeed"

Build a vacation and school fund.

This Liberty Bell Home Savings Bank (Size 3 1/4 x 4) \$1.00 is yours for

The famous Liberty Bell announced National Independence July 4, 1776. Ask for historical folder FREE. The Bankers Savings & Credit System Co., 10302 Madison Ave., Cleveland, O.

**Ranger's 5a Month**  
Finest bicycle built—44 styles, colors and sizes. Factory to Rider prices. FREE delivery, express prepaid on 30 Days Free Trial. Cash or easy payments. Write today for big catalog, special Factory Bicycle Prices from \$21.50 up! free trial plan and marvelous offers.

**MEAD CYCLE COMPANY**  
MEAD C. 50 CHICAGO

**SHOMONT WHITE COLLIES**  
The "Academy of All Dogdom." The most beautiful dogs in the world. Intelligent, fearless, faithful. They guard your home, watch your herd, play with your children. Write for special list. Satisfaction guaranteed. Shomont Kennels, Box 165, Monticello, Iowa.

## The Boys Who Made Radio—3

Lee De Forest

By EARL REEVES

To the boys who are making radio today Doctor De Forest says:

1. To the readers of The Youth's Companion who are experimenting with wireless today I have a word of advice: Seek quality; improve, improve!

2. Radio even today is like a big overgrown school boy—still in "knee pants" and with a gossling voice, when it should wear trousers and sing.

3. Few receiving sets are free from distortion: millions squeal or frightfully warp the sound. We are too complacent, too easily satisfied.

4. It is *our* radio. We have made it, by our tinkering and experimenting. It is *our* baby. Let us pledge ourselves to bring it up in quality.

5. And if we pledge ourselves to do that—who knows? Among the boys who tune in homemade sets tonight may be one who will even cause static to vanish from the home. For him a medal waits.

THE Youth's Companion gave us one of the most important of the boys who made radio in America. More than forty years ago The Youth's Companion began training this boy, Lee De Forest.

The Rev. Henry Swift De Forest, Lee's father, was moved from town to town by the officials of the Congregational Church. In Waterloo, Iowa, when Lee was just past three, he met one of the great works of Mr. Edison. It was a "tin foil phonograph." Lee stood in front of it and asked questions until his elders were almost distracted trying to answer him.

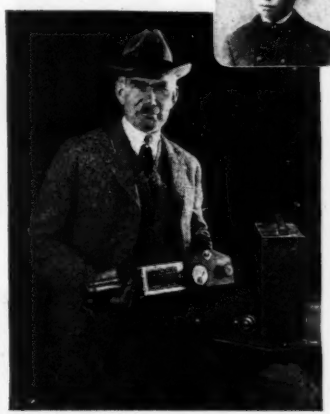
When Lee had learned how to read easily—when he was ten or eleven—and he was casting about for something outside school books, this was his reading diet: The Youth's Companion, Patent Office Reports and an encyclopedia of mechanics. And when he was twelve—let's see, that would have been in 1885—The Companion was telling him how to make many kinds of electrical apparatus. Then his interest really did reach fever heat. Each week he tackled a new problem. But on many of them he failed because he didn't have the simplest supplies that were needed. If he failed for that or for any other reason, he pasted the instruction column in his notebook and wrote down below in a few sentences exactly what happened.

There was a battery he tried to build. He had no carbon, so he made some charcoal. When that failed to work he tried grinding the charcoal to powder and then working it into a mass again with molasses. Even that failed. It was months before he finished.

The Youth's Companion offered prizes to boys who would get new subscribers. I got an air gun and a magic lantern that way, I remember; but De Forest must have been a lot better at that business than I was, for when he was fifteen he won a complete electroplating outfit. He hitched it up to his homemade batteries. And so The Companion, which had made him ambitious to be an "engineer and inventor," also set him up in business. He replated silverware for his neighbors, and it was with this outfit that he earned his first dollar.

When he was seventeen his father took him to Mt. Hermon, Mass., where he was to prepare to enter the Sheffield School at Yale. There he helped out a small allowance by working at week-ends, his first job being that of digging potatoes. The next summer he sold books. Then the summer before he entered Yale he went out to Chicago to earn some money pushing people about the World's Fair grounds in a wheel chair.

At Yale that fall he was awarded \$300 a year from the De Forest fund. Now, he was on his way to becoming an engineer. He promptly proved that already he was an inventor; he tried to market six or eight inventions during his freshman year. At prep school he had done some track work and played tennis, but at college he was too intent on science to have much time for sports. He did many odd jobs to help pay his way. He was a helper in the psychological laboratory; once he worked for a dairy; at other times he was a student waiter. Even after he had gone past his commencement day and



De Forest in his laboratory. Upper Picture—De Forest at 13

into postgraduate research he had to "work for a living" on the side.

When he had attained the honor of a Ph. D. degree he went to Chicago to work for the Western Electric for \$8 a week. Later he secured an editorial position on the Western Electrician, magazine, at \$10 a week. And he promptly asked to be reduced to \$5! Imagine it! He wanted to work shorter hours and use the rest of the time for himself. To make up for his loss in pay he taught and did French translations at night.

A year later he traveled to New York with his newly invented wireless system. Years of struggle followed, during which he sought money from "unbelievers." The courts decided that Marconi held the vital basic wireless patents. The very next year, 1906, Doctor De Forest patented his greatest invention, the "listening lamp," or the "audion," to use the trade name that was coined from the words "audio" and "ion." He had been working on the lamp for five years, starting his experiments when for a time he thought he observed that wireless waves caused the light of an old-fashioned gas mantle to flutter. Actually, he discovered later, it was a sound-wave phenomenon, but it served the purpose of setting him off on the train of thought which eventually led to the audion. With the aid of this little bulb Doctor De Forest telephoned through the air in 1907, and in 1909 he broadcast Caruso's voice from the roof of the Metropolitan Opera House.

Consider these strange incidents: De Forest's French and British patents in his bulb expired because a friend would not advance him \$125 for renewal fees in exchange for a half-interest in the patents. Then came the war, and the tubes which France made for itself and its allies would have yielded De Forest and his friend approximately a million dollars in inventor's royalties had the friend not "doubted."

Working on a salary in San Francisco in 1912, Doctor De Forest raised \$300 with which to travel to New York to try to prove that his tube had "commercial value"; and a district attorney caused his arrest and very nearly sent him to prison because, as he declared, the invention was "a piece of glass built, not to perform wonders, but to sell stock." Ultimately the "piece of glass" sold for nearly \$400,000—and far too cheaply at that. Some one has estimated, Doctor De Forest declares today, that the audion patents have earned \$200,000,000.

In addition to the use which you make of it, think what a miracle-worker the tube is in another way: the use of it made it possible for us to telegraph and telephone across the continent, and with it experts can make one copper wire carry three telephone conversations and ten telegraph messages simultaneously. (Don't ask me to explain that.)

Doctor De Forest predicted modern radio broadcasting and general reception soon after the invention of the audion bulb; but it was fifteen years before he saw that dream begin to be realized. Two of his assistants left him to make fortunes as manufacturers. But he, being a pioneer and a scientist, moved on to other fields. For many years he has been exclusively at work to perfect "speaking films."



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## A Happy Girl's Letter from School

Wouldn't You Like to Share Her Pleasures?

DEAR Y. C.:

I am going to tell you all that has been happening in the past few days, here at school.

In the first place, riding is holding its own in my affections, as in almost everyone's, if the numbers that come out for it each day are any indication.

Yesterday we took a gorgeous ride through the woods, coming out into the open just in time to see the sun set behind a hill, throwing two sentinel pine trees into silhouette against the orange sky. It was so majestic and still that even now I'm a bit under its spell.

We are also drilling every other day for the riding meet scheduled for next week. We have tandem riding, and jumping for exhibition. It's exciting, especially since the school is divided into two teams, just as we were at camp, and every event either team wins counts a point toward the banner awarded at the end of the year.

Last Saturday the Dramatic Club gave two plays, making four they've given so far this year. I was in one of them, but I can be modest and still say that they were awfully good, for I had a very small part. You should have seen me dressed as a boy. We had a lot of fun at rehearsals, at any rate, and we are marking time now until we begin work on the June play.

It's a tradition here at school that every June a Shakespeare play is to be presented out of doors. This year it's going to be "Romeo and Juliet." It will be splendid, for the girls having the leading parts just fit into them.

I must hurry along, as there is to be a meeting of the Year Book staff in five minutes. We are going to discuss the make-up of the book, for naturally we want it to be better each year. After that is over, four of us are going out to practice tennis before school begins this afternoon. The tennis doubles tournament is going to start in a few days.

Yours—immersed in boarding-school life and liking it a lot—

PEG



## Use this Directory of Good Schools and Camps

JOYOUS letters like this one from girls and boys at school have been presented from time to time in this important department of The Youth's Companion—a department dedicated to the duty of giving Companion readers full and accurate information about schools and camps in many different parts of America.

"Thanks to the friendly coöperation of The Youth's Companion staff, and to the intelligent interest of its subscribers," writes the principal of a famous camp in Maine, "my enrolments this spring have been more numerous, and from more desirable patrons, than ever before."

The schools and camps which you find on this page are cordially indorsed by us. If you can visit some of them, you will have a very happy experience, and will be amazed no doubt to see how many far-

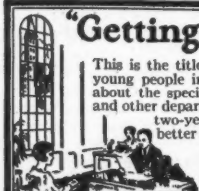
reaching improvements in academic courses, athletics, recreations, buildings and ideals have been made by American private school principals during the past decade. Many new ideas and ideals are coming into education nowadays; and when, as you will find by inquiry, these improvements are based upon the sound and enduring tradition of American education the result is of extreme importance to modern boys and girls and to their parents.

The Director of The Youth's Companion School and Camp Department will be very happy to give you any information that you may desire. Every letter of inquiry is welcome, and no pains are spared to prepare an adequate and helpful reply. Therefore, write freely, both to the schools and camps that you find announced on this page and to

THE DIRECTOR, School and Camp Department, 8 Arlington Street, Boston, Mass.

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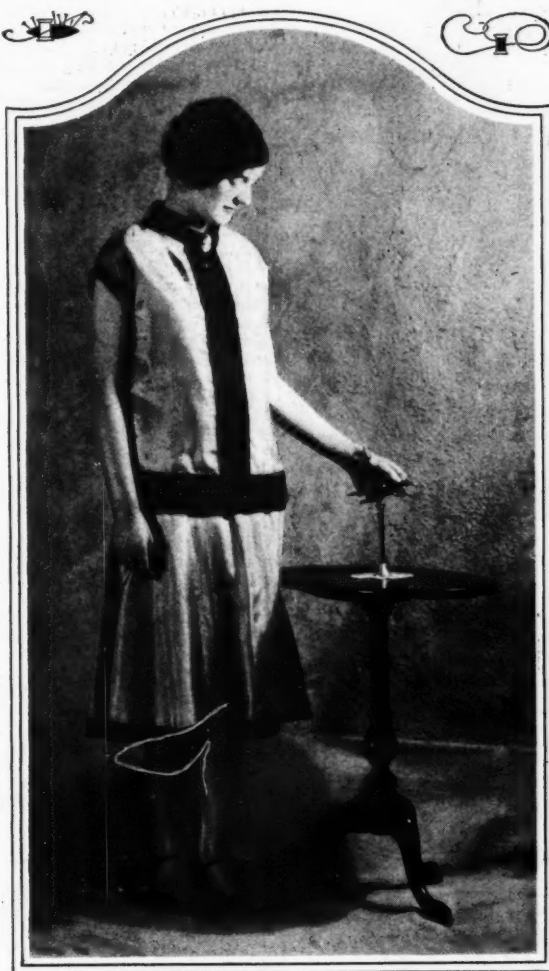
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## Fashions for the Young Girl

### Suzanne Made This Herself



Hoyle  
Studio  
Boston

Dear Hazel Grey: Who could have believed that taffeta would be the thing this spring? I was so thrilled when you told me how good it was going to be, because my very first evening dress was made of it. I suppose it's sentimental and all that to want to keep a dress that you've had awfully good times in, but anyway I'd kept my green-and-gold taffeta of two years ago all done up with tissue paper in the bottom drawer of the guest room bureau! It was made with a little short-waisted basque top and a wide and long full skirt—bless its heart. Out of the skirt alone I had four yards of material, and that was all I used for this. How do you like it? Don't you think that it will be just the thing for semi-formal parties this spring? And I think I'll christen it at the tea dance after prom.

The nicest thing about the whole dress is that it didn't cost a cent—the black satin that I used to bind with was left from a cape of mother's. I made the skirt circular and sewed it on to a thin lining-silk top, binding the hem with a three-inch-wide strip of satin so that it showed an inch and a half on each side. The jacket really had no sleeves at all. They are just little cap ones, —a continuation of the waist material, —and I bound them to make them look longer. The binding around the bottom of the jacket and up the front was three inches wide, too, and just folded over around the neck to make the mandarin collar.

I'm feeling terribly puffed up about the final product—I never expected to have a two-piece dress, made of taffeta, and in a

color that you told me should be one of my most becoming ones, all at once! I can hardly wait to hear what you think of it.

Lovingly,

*Suzanne*

### AN INTERESTING BOOK

I HAVE just finished reading a book called "Everyday Science" by Edith Lillian Smith. It is put out by Houghton Mifflin Co. of Boston, and it costs \$2. "Everyday Science" is sort of a schoolbooky-sounding name, and I confess the book lay on my desk a good while before I opened it—just because of its name. But to open it once is all that is necessary to make you keep turning pages. It tells you a little bit about almost everything—insects, and rocks, and the stars, and how to raise flowers indoors. Send check or money order (add ten cents per volume for postage) to me, and I will ask our bookshop to send it to you.

It tells you about bacteria and has pictures of different kinds to show you what they look like. The first picture shows you bacteria that cause milk to sour. Have you ever seen them under the microscope? Did you ever realize how fast bacteria grow? This book says, "If you can imagine all the oceans of the world to be composed of liquid food for bacteria, a mile deep, and you put one germ into the ocean, in five days the oceans would be a solid mass of germs." Isn't that amazing? You can read about some interesting experiments to do with bacteria right in your own home too.

*Hazel Grey*

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## How I Started My Antique Shop

By E. O. H. LARNED

PERHAPS you would like to know how I started in the business of buying and selling antiques. One day I discovered that in order to make the proverbial two ends meet money would have to be found; so, loving old things, I thought an antique shop would be the very place in which to find it, and an old corn crib on my grounds the very place in which to "set up shop."

This building has an attic, but when the little shop was started only the lower part was used. I decided to try the success of this venture for one month only, the month of October; and it was a bold dash, being late in the season, and I living a mile and a half from the town and off the main road. When your thoughts are full of a subject you are always on the lookout for things connected with it, and for a month before starting business I gazed at every house and shop I passed, wondering if antiques for sale could be found within, until my family said I asked the butcher and the fish man if they sold them!

### Get a Good Name

The day I decided on my future work one of this same family was driving me to a train when an appealing sign over a not appealing place caught the eye, "The Community Shop." That member of the family, not being infected by the antique germ, was sadly bored during the fifteen minutes while I became friends with the owners of the shop and bought some pieces of glass and a lantern. The glass went in the train with me. At the house where I was going I met quite by accident two people, lovers of antiques and collectors. They told me that a little glass dish and a bowl, two of that morning's purchases, were worth three times what I paid for them. The next day one of these people gave me a lesson in old glass among his beautiful things. What a fine beginning for a future dealer!

### More Good Luck

The next piece of good luck came in an invitation to motor to Plymouth. There I found an old doll and two or three chairs; also a mirror, which turned out to be one of the mistakes and the lessons. Fifteen dollars gone for a patched-up thing that is with me still. You can have it for thirteen. Then I heard of two places where excellent things could be bought, and I went to see them. In one the man sold very reasonably to other dealers, and I got a lovely little table and a few nice things. The man himself carried the table to the station and boosted us both on the train, where I clung to the table faithfully all the way home. He wanted me to take two good English-walnut, Chippendale chairs, but I was afraid to do so then. All the way back I thought about

those chairs and wondered if I dared put out so much money. I was starting in business with three hundred dollars. Another time that same bored member of the family had to wait again while the Community Shop sold the future Corn Crib Shop a tray and three or four more things.

### Things Really Began

And now the arrangement of the shop began. Two Italian boys scrubbed the floors and washed the windows, and the happy saleswoman put up chintz curtains and placed the glass, china, little table, rocking-chair, other chairs and various small purchases where they would show to the best advantage. Then she telephoned for those two Chippendale chairs and contemplated her business collapse and financial failure in consequence! When the chairs came they were so very good-looking that it is no wonder they were sold in a week. Near the Corn Crib Shop some people were selling old things from their house, and I bought a few pieces. When I started I did not have enough furniture and things to fill the shop by any means, and I was wishing I could manage to get more when two people asked me to take andirons, china, quilts, and so forth, to sell on commission when a friend of mine who had been buying and selling antiques without having a shop brought several to the Corn Crib.

### My First Sale

The opening day, October 1, a sign was swinging from the gate informing the passer-by that antiques were sold in the Corn Crib. My first sale was one of my first purchases, the little glass dish, and when it was tied in fresh tissue paper I knew it was a good sale and that the buyer had a good thing at a fair price, two important items in selling anything. So the little shop had begun, and during that month and until November 10, when an oil stove—even two oil stoves—could not keep us warm, I did a good business. When the shop closed, the three hundred dollars I had put into it had come back with one hundred and seventy-five dollars beside, and I still had about one hundred and seventy dollars' worth of things to begin with the next spring. Having no overhead expenses, all I made was clear gain.

The following May a curtain was hung halfway across the Corn Crib attic, and some of the shop climbed up stairs. Then it ambled out to a small old building a few feet away and took possession of one of the two rooms there. Later it took the whole Corn Crib and both rooms in the other building, and that is where it is now, helping to pay the bills and giving its owner interesting work. I am hoping it will give me a motor car some day, a thing much needed by every antique dealer.

### SIGNS ARE DECEIVING

AN elderly farmer drove into town one day and hitched his team to a telegraph post. "Here," exclaimed the burly policeman, "you can't hitch there!" "Can't, eh?" shouted the irate farmer. "Well, why have you got a sign up, 'Fine for Hitching'?"  
EMELINE CONGDON, Wenatchee, Wash., 13 years

### TALKATIVE CHICKENS

A MAN, hearing a noise in his chicken roost, walked out on his porch and hollered, "Who's there?" No answer. "Who's there?" Still no answer. "Answer or I'll shoot. Who's there?" Then a shaky voice answered, "Nobody—jes' us chickens."  
ELIZABETH KERR, Corsicana, Texas, 13 years

### I DON'T BLAME HIM

MR. BROWN: "I understand that Senator Green wanted you to act as his private secretary."  
Mr. Simmons: "He did, but I wouldn't accept the position because I would have to sign everything Green, per Simmons."  
MARY ELLEN TERRY, Washington, D. C.

### 100 PER CENT

A SCHOOL-TEACHER once asked a boy if he could name an important city in Alaska. "No, m'm," replied the boy. "Correct," said the teacher.  
HELEN CHAMBERS, Eugene, Oregon, 12 years

You see above the other article by Mrs. Larned that I promised you so long ago. When are you going to start your own little shop? Write to me if you need help about a name, the color scheme—any details; I'll be glad to try to help. Two heads are sometimes better than one!

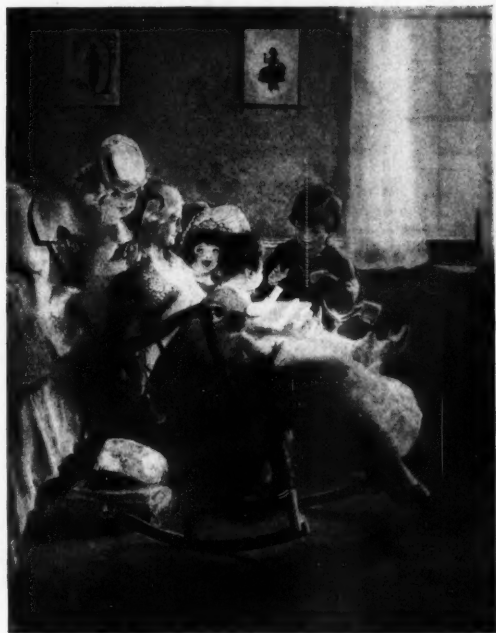
*Hazel Gray*

THE YOUTH'S COMPANION

8 Arlington Street, Boston



## THE CHILDREN'S CORNER



Drawing by  
May Aiken

## GRANDMA'S ROCKER

By Margaret C. Lysaght

Grandmama's rocker is singing	Grandmama's rocker is comfy
a song,	and wide,
Squeak, squawk, squeak,	Squeak, squawk, squeak,
squawk;	squawk;
Singing a song as they amble	Never so jolly a place for a
along,	ride,
Squeak, squawk, squeak,	Squeak, squawk, squeak,
squawk;	squawk.
Singing a song of the long, long	Sometimes it's a choo-choo car
ago,	jolly and fine;
Of the days that the rocker and	Again it's a fire engine heading
Grandmama know,	the line.
With a squeak and a squawk as	There's no place so cozy at
they rock to and fro,	lullaby-time,
Squeak, squawk, squeak,	Squeak, squawk, squeak,
squawk.	squawk.



How the Flowers Got their  
Names

*Helen of Troy*

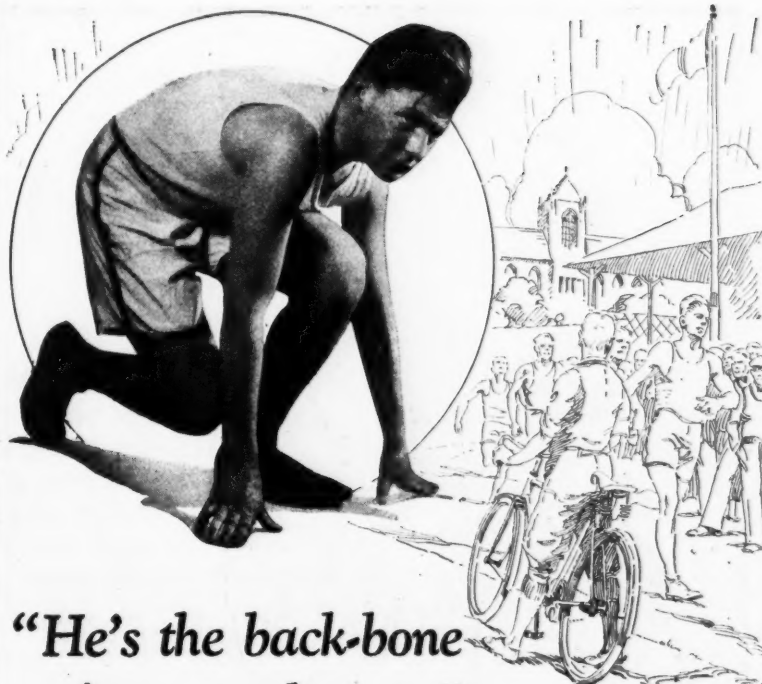
By LOCKWOOD BARR

ONE day my boy was with me in the garden, and he suddenly exclaimed, "O daddy, look at the bug," pointing to one of my prize perennials, which was literally covered with blooms upon which a little bug was having a feast. I sent him for a small can and some kerosene, and while I cleaned off the bugs and dropped them in the kerosene I told him this story:

"Helen was credited with being the most beautiful woman in ancient Greece. She was stolen by Paris. This was the cause of the Trojan

war, in which, we are told by Homer in his 'Iliad,' Hector, Achilles, Ajax and other heroes fought.

"Paris took Helen to Troy and put her in his palace, which was surrounded by lovely flower gardens. One morning Helen was walking in the garden with her maids, and she stopped to admire a yellow daisy-like flower which some foreign traveler had brought from far-off Africa. She stopped and plucked one of the beautiful yellow flowers, because it matched her gown, but instantly, with a shudder, she threw it to the ground, exclaiming in her native Greek tongue, 'Oh, koris opis!' which, being freely translated, is: 'Oh, look at the bug!' Almost your words, my boy, when we began this talk. And, according to the myth, that is how our coreopsis got its name."



"He's the back-bone  
of our track team"

"JUST watch Jim give all these other runners the air. He's a regular greyhound in a sprint race.

"Is he popular? I'll say he is. And he's never been beaten yet.

"Jim keeps in trim by taking long rides on his snappy new bicycle. It's a peach, with a New Departure Coaster Brake, and everything. He says it's great fun, and makes getting into training a lot easier."

\* \* \* \* \*

The best fellows in your school and in your town, wherever you may live, are the kind who ride a bicycle. It's true everywhere. Get one yourself, if you want to be one of the regular fellows. And make sure it is equipped with a New Departure—the coaster brake of giant strength.

If your birthday comes this month tell Dad the best present is a New Departure equipped bicycle. Send today for amusing New Departure puzzles.

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America's 150th Anniversary  
**THE BRAZEL WAY**  
Get this Assortment Only \$2 Safe and Sane of FIREWORKS Only \$2 within the Law

**BOYS!** this outfit is prepared especially to enable you to celebrate a real 4th of July. This wonderful assortment (worth \$5.00 at any retail store) gives a day's fun for the whole family. Consists of 5 packs Chinese Firecrackers, 2 colored firecrackers, 6 Roman candles, 15 bang salutes 3 1/4 inch, 1 early riser bomb, 1 colored star mine, 12 pieces penny night fireworks (assorted), 6 boxes sparklers (10 in a box), 12 pieces nigger chasers, 12 pieces grasshopper, 12 pieces sun of a gun, 12 pieces of ruby lights, 36 pieces of penny snakes in grass (3 boxes), 12 crazy cracker sticks, 12 pieces Jump-Jacks, 1 piece rattling Kracko, 3 pieces cardboard rattling Tanks and punk. All complete in a neat wood box. You can't beat it for variety, quantity, quality, and price. Order now—don't wait. Fireworks cannot be mailed. Name your express office. We ship same day. Our booklet of celebration goods free. Send for it also. Remittance must accompany order.  
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Iver Johnson  
Motobike

## The World's Best BICYCLES To Be Given Away

**Hello Boys and Girls —**

For some time I've been promising myself that I would do something handsome in the way of a new surprise for you alone. And here it is — a Bicycle Contest in which only those 18 years of age or under may compete. In return for a little pleasant work for The Youth's Companion, the publishers promise to reward the winners with their choice of the finest wheels obtainable. Think what that means with the long school vacation just ahead, and all outdoors inviting you to weeks and weeks of the most glorious sport! Now it's up to you. Won't you mail the coupon today telling me you're going out to win?

Your friend,

*Mason Willis*

The Youth's Companion  
8 Arlington Street, Boston

### You May Take Your Pick Of The Finest

¶ The boy and girl in each of the eight sections (see map) who send the largest number of new subscriptions for The Youth's Companion between June 3 and July 1 will not only receive a Premium for each new subscription, but in addition they will each be given their choice of the finest Bicycles made in this country.

¶ For example, the boy living in Section 1 who sends us the most subscriptions obtained by any boy in that section will win a Bicycle. Another Bicycle will also be given to the girl who sends the most subscriptions obtained by any girl in Section 1; and so on through each of the eight sections.

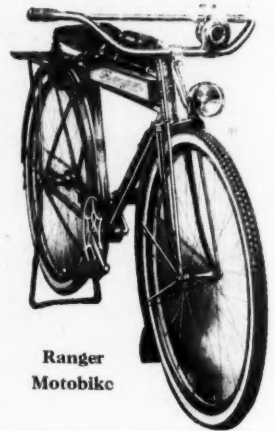
¶ As the winner in your section you may take your pick of any wheel in the popular Iver Johnson, Ranger or Columbia makes. You may choose either the Motobike with tank, horn, light and stand. Or, if you prefer a lighter wheel, stripped for action, you may have the Roadster style. Take any color, any equipment shown in the catalogues of these famous wheels — and The Youth's Companion will pay the bill.



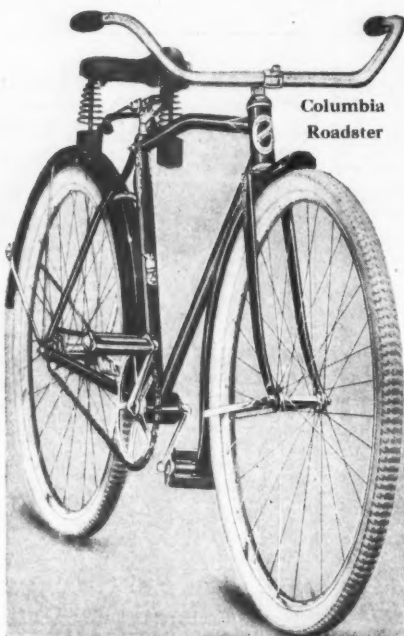
¶ The Bicycle Contest is open to Companion subscribers, boys and girls only — no one over 18 years of age may compete. But you may get your parents and older friends to help you in every possible way. Remember also that you compete only with other boys and girls in your own district, so that increases your chance of winning.

¶ Only NEW yearly subscriptions will count. By "new" we mean a subscription that places The Youth's Companion in a home where it has not been taken the past year. Collect \$2.00 for a subscription to any point in the United States or Canada and send the money to us with name and full address of the new subscriber. Send subscriptions in as you get them and we will keep count of your total in the contest.

¶ In securing new subscriptions you may take orders anywhere, you are not restricted to your own section. Everything you mail at your post office on or after June 3 and up to the close of mails on July 1 will count in the contest.



Ranger  
Motobike



Columbia  
Roadster

### —And You Get Premiums Too

This is an unusual contest in still another way. Bicycles are only a part of your reward. For each new subscription you send, you will receive your choice of any of the fine Premiums offered in the March 4 Youth's Companion (if you have mislaid your copy I will send you another). So you see you can't lose in this contest, but will be generously rewarded for everything you do.

Remember then that the bicycles are "extra" prizes. For each individual subscription you may take your choice of reward from the following Premiums: Banjo-Uke, Eastman Camera, Wrist Watches, Biff Bag, Scout Knife, Infelder's Glove, Companion Air Rifle, Big Giant Steam Engine, Hunting Knife, Most-Talked-of Books, Omar Pearls, Silk Stockings, Festoon Necklaces; and many others.

**IF MONEY IS PREFERRED** instead of a Premium we will pay you a Cash Premium of FIFTY CENTS for each new yearly subscription you send us. Collect \$2.00, keep 50 cents and send us \$1.50.

### How To Win Your Wheel

There's nothing at all difficult about it. Surely what any other boy or girl can do, you can do. First of all mail me the coupon to let me know you are starting out for the bicycle. I will write you a letter and send you some sample copies and order blanks. But don't wait for these to come. Take several of your Youth's Companions and start right out after orders. Tell each person what you're trying to do and I am sure they will be glad to help. Above all, just remember that persistence — stick-to-it-iveness — keeping right on regardless of obstacles — these are the qualities that make winners in this contest and in everything you try to do through life. Let's go — today — now!

Address all subscription orders to Bicycle Contest  
The Youth's Companion  
8 Arlington St., Boston, Mass.

MASON WILLIS  
The Youth's Companion  
8 Arlington Street  
Boston, Mass.

Your Offer looks good to me and  
I'm going out to win a

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Send me some sample copies and order  
blanks and all the helps you can.

Yours for a Bicycle,

Name .....

Address .....

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